UNSW SYDNEY

HIV/AIDS, hepatitis and sexually transmissible infections in Australia: Annual report of trends in behaviour 2008

Author:
Imrie, John; Frankland, Andrew

Publication details:
Report No. Monograph 3/2008

Publication Date:
2008

DOI:
https://doi.org/10.26190/unsworks/784

License:
https://creativecommons.org/licenses/by-nc-nd/3.0/au/
Link to license to see what you are allowed to do with this resource.

Downloaded from http://hdl.handle.net/1959.4/44890 in https://unsworks.unsw.edu.au on 2024-04-25

HIV/AIDS, hepatitis and sexually transmissible infections in Australia

Annual report of trends in behaviour 2008

Edited by
John Imrie
Andrew Frankland

NCHSR

HIV/AIDS, hepatitis and sexually transmissible infections in Australia

Annual report of trends in behaviour 2008

Edited by
John Imrie
Andrew Frankland

National Centre in HIV Social Research

in collaboration with
Australian Research Centre in Sex, Health and Society
National Centre in HIV Epidemiology and Clinical Research

NCHSR

Copies of this monograph or any other publications from the Centre may be obtained by contacting:

National Centre in HIV Social Research

Level 2, Robert Webster Building
University of New South Wales
Sydney NSW 2052 Australia

Telephone: +61 2 9385 6776
Fax: +61 2 9385 6455
Email: nchsr@unsw.edu.au
Website: http://nchsr.arts.unsw.edu.au

© National Centre in HIV Social Research 2008
ISSN 1445-7881
Monograph 2/2008

Photograph on page 5 © Stockbyte, reproduced under licence
Photograph on page 16 © iStockphoto.com/Millanovic
Photograph on page 25 © iStockphoto.com/Eric Hood
Photograph on page 29 © iStockphoto.com/Alexander Hafemann
Photograph on page 35 © iStockphoto.com/Harmen Piekema
Posters on page 41 reproduced with the permission of ACON

The National Centre in HIV Social Research is funded by the Commonwealth Department of Health and Ageing and is part of the Faculty of Arts & Social Sciences at the University of New South Wales.

Copyedited by Sarah Fitzherbert
Layout by Judi Rainbow
Printed by Pegasus Print Group

Suggested citation:
Imrie, J., & Frankland, A. (Eds.). (2008). *HIV/AIDS, hepatitis and sexually transmissible infections in Australia: Annual report of trends in behaviour 2008* (Monograph 2/2008). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Contents

List of figures iii

List of tables iv

Acknowledgments vi

Glossary vii

Preface viii

Executive summary 1

1 Sexual practice and partnerships 5

1.1 Gay-identified and other men who have sex with men 6

Partnerships among men: regular and casual 6

Sexual practices: anal intercourse 6

1.2 Agreements among homosexually active men regarding unprotected anal intercourse 11

Negotiated safety and unprotected anal intercourse with casual partners 12

1.3 Sexual practices of gay men living with HIV/AIDS 13

Seroconcordance and regular partnerships 13

Seroconcordance and casual partnerships 13

Measuring social capital among gay and other men who have sex with men: findings from the *e-male* pilot survey 14

1.4 Future developments 15

Establishing an internet-based cohort and behavioural surveillance research platform 15

Validating respondent-driven sampling methods to engage the most hard-to-reach men who have sex with men in Sydney 15

2 Testing for HIV and other STIs 16

2.1 Trends in testing for HIV and other sexually transmissible infections in the Gay Community Periodic Surveys 16

HIV testing 16

Testing for STIs other than HIV 18

2.2 STI testing in the Positive Health cohort 20

2.3 Knowledge of the availability of non-occupational post-exposure prophylaxis following potential sexual exposure to HIV, among homosexually active men 20

2.4 Perceptions of HIV and the use of HIV services among people from priority culturally and linguistically diverse communities in New South Wales 21

2.5 Knowledge of sexually transmissible infections and blood-borne viruses among young Aboriginal people in New South Wales 23

3 Living with HIV **25**
3.1 Trends in need for care and support among homosexually active men living with HIV 25
3.2 Uptake of antiretroviral treatment, and viral load 26
3.3 Future developments 28
Experiences of people living heterosexually with HIV: the Straightpoz study 28

4 Drug use and drug treatment **29**
4.1 Recreational drug use among homosexually active men 29
4.2 Injecting drug use among homosexually active men 29
Attitudes of heroin-injecting drug users towards heroin, as predictors of treatment success 30
4.3 Illicit drug use among young people attending music festivals in New South Wales 31
National treatment service users project: Phase 2 32
4.4 Injecting drug use among pharmacy Fitpack users in New South Wales 33
Avoiding 'the loop': why some drug users choose to obtain injecting equipment from pharmacies rather than needle and syringe programs 34

5 Hepatitis infections **35**
5.1 Knowledge of risk factors for hepatitis C transmission among pharmacy Fitpack users: results of 2007 study 35
5.2 Knowledge of hepatitis C among young people attending music festivals in New South Wales 37
Psychosocial impacts following completion of interferon-based treatment for hepatitis C virus infection 37
5.3 Future developments 38
Using computer-assisted survey techniques in community settings 38

6 The current climate **39**
6.1 Ambivalence about gay community: findings from the QUICKIE project 39

References 43

List of figures

Figure 1 Proportions (%) of men who reported any unprotected anal intercourse with regular partners (UAIR) in the six months prior to the survey, based on all men who participated 8

Figure 2: Proportions (%) of men who reported any unprotected anal intercourse with casual partners (UAIC) in the six months prior to the survey, based on all men who participated 9

Figure 3: Proportions (%) of men who had ever been tested for HIV 17

Figure 4: Condom use among participants with sexual partners—Priority CALD Periodic Survey 22

Figure 5: Perceptions about HIV testing, and actual testing for HIV—Priority CALD Periodic Survey 22

Figure 6: Frequency of use of health services—Priority CALD Periodic Survey 23

Figure 7: Proportions (%) of people living with HIV/AIDS who are on combination antiretroviral therapy (ART) 27

Figure 8: Proportion (%) of participants who reported each drug as 'fairly easy' or 'very easy' to obtain, among music festival patrons in NSW, 2004–2007 32

Figure 9: Drug most recently injected by Fitpack users, 2007 33

Figure 10: Testing for hepatitis C, and hepatitis C status, among Fitpack users, 2007 36

Figure 11: Example of a poster from the ACON 'Mates' campaign 41

Figure 12: Example of a poster from the ACON and City of Sydney 'Would you wear it?' campaign 41

List of tables

Table 1: Proportions (%) of men who reported having sex with (a) regular partner(s), (b) casual partners, and (c) both regular and casual partners—Gay Community Periodic Surveys, 2003–2007 7

Table 2: Proportions (%) of men who had engaged in any anal intercourse—Gay Community Periodic Surveys, 2003–2007 7

Table 3: Proportions (%) of men who had engaged in any *unprotected* anal intercourse—Gay Community Periodic Surveys, 2003–2007 7

Table 4a: Proportions (%) of men who had engaged in any unprotected anal intercourse with regular partners (UAIR), based on all men who participated—Gay Community Periodic Surveys, 2003–2007 8

Table 4b: Proportions (%) of men who had engaged in any unprotected anal intercourse with regular partners (UAIR), among men who reported any sex with a regular partner in the six months prior to the survey (i.e. restricted sample)—Gay Community Periodic Surveys, 2003–2007 9

Table 5a: Proportions (%) of men who had engaged in any unprotected anal intercourse with casual partners (UAIC), based on all men who participated—Gay Community Periodic Surveys, 2003–2007 9

Table 5b: Proportions (%) of men who reported any unprotected anal intercourse with casual partners (UAIC), among men who reported any sex with a casual partner in the six months prior to the survey (i.e. restricted sample)—Gay Community Periodic Surveys, 2003–2007 10

Table 6: Proportions (%) of men who had engaged in any unprotected anal intercourse with casual partners (UAIC), by HIV serostatus of respondent, among men who reported any sex with a casual partner in the six months prior to the survey (i.e. restricted sample)—Gay Community Periodic Surveys, 2003–2007 10

Table 7: Proportions (%) of men who reported any sex with a regular partner and who had a 'safe sex' agreement, by HIV serostatus of relationship—Gay Community Periodic Surveys, 2003–2007 11

Table 8: Proportions (%) who reported having engaged in unprotected anal intercourse with a casual partner in the six months prior to data collection, among HIV-negative men who reported having a negotiated safety agreement with their regular partner—Gay Community Periodic Surveys, 2003–2007 12

Table 9: Proportions (%) of HIV-positive men who had engaged in unprotected anal intercourse with their regular partner in the six months prior to the survey, by HIV serostatus of partner—Gay Community Periodic Surveys, 2003–2007 12

Table 10: Sexual practices with any, and HIV-serodiscordant, casual partners: Positive Health (PH) and Health in Men (HIM) cohorts, 2003–2007 13

Table 11: Mean scores for Strength of Social Connectedness scale for each group of participants' friends and family—*e-male* study 14

Table 12: Proportions (%) of men who reported ever having been tested for HIV—Gay Community Periodic Surveys, 2003–2007 17

Table 13: Proportions (%) of men who had been tested for HIV in the six months prior to the survey, among men who reported ever having had an HIV test—Gay Community Periodic Surveys, 2003–2007 18

Table 14: Proportions (%) of men under the age of 25 who reported ever having been tested for HIV—Gay Community Periodic Surveys, 2003–2007 18

Table 15: Proportions (%) of men who had been tested for sexually transmissible infections other than HIV in the 12 months prior to the survey—Gay Community Periodic Surveys, 2003–2007 19

Table 16: Prevalence of 'any' testing for STIs other than HIV among men who were not HIV-positive, by number of partners—Gay Community Periodic Surveys, 2003–2007 20

Table 17: Gonorrhoea and chlamydia testing and prevalence—Positive Health cohort of HIV-positive men 20

Table 18: Proportions (%) of men who reported awareness of non-occupational post-exposure prophylaxis (NPEP)—Gay Community Periodic Surveys, 2003–2007 21

Table 19: Proportion (%) of respondents living in various types of locations, by recruitment event—Survey of Knowledge, Risk Practices and Access to Services among Young Aboriginal People in New South Wales 24

Table 20: Gender composition of the sample, by recruitment event—Survey of Knowledge, Risk Practices and Access to Services among Young Aboriginal People in New South Wales 24

Table 21: Proportion (%) of participants in the Positive Health cohort who reported needing particular care and support services and experienced barriers to accessing these services 26

Table 22: Proportions (%) of people living with HIV/AIDS who are on combination antiretroviral therapy (ART)—Gay Community Periodic Surveys, 2003–2007 26

Table 23: Proportions (%) of people living with HIV/AIDS who reported having an undetectable viral load—Gay Community Periodic Surveys, 2003–2007 27

Table 24: Proportions (%) of homosexually active men who reported having used illicit drugs in the six months prior to the survey—Gay Community Periodic Surveys, 2003–2007 30

Table 25: Proportions (%) of homosexually active men who reported having injected at least one drug in the six months prior to the survey—Gay Community Periodic Surveys, 2003–2007 30

Table 26: Proportion (%) of music festival patrons at the Big Day Out in Sydney who reported any recent illicit drug use, 2004–2007 31

Table 27: Proportion (%) of participants who reported using a needle and syringe after (a) one other person and (b) two or more people, and their relationships to those people, among Fitpack users who reported reusing a needle and syringe (N = 121), 2007 36

Table 28: Knowledge of hepatitis C and the risks of transmission, among Fitpack users, 2006 and 2007 36

Table 29: Proportion (%) of respondents who correctly identified that hepatitis C transmission (and HIV transmission in 2004) could occur by the following means, among young people who attended music festivals in NSW, 2004–2007 37

Acknowledgments

The behavioural data reported in this annual summary are the collective effort of researchers, funding organisations, collaborators and participants. Our thanks to:

Aboriginal Health and Medical Research Council of NSW

ACON (formerly the AIDS Council of NSW)

AIDS Council of South Australia

Albion Street Centre, Sydney

Australian Federation of AIDS Organisations (AFAO) and its member organisations

Australian Injecting and Illicit Drug Users League (AIVL) and its member organisations

Australian Research Centre in Sex, Health and Society (ARCSHS), La Trobe University, Melbourne

Department of Health, Western Australia

Department of Human Services, South Australia

East Sydney Doctors (formerly 407 Doctors, Sydney)

Gender Centre, Sydney

Haemophilia Foundation Australia

Hepatitis Australia (formerly the Australian Hepatitis Council)

Hepatitis C Council of NSW

Hepatitis C Council of South Australia

Hepatitis Council of Queensland

Hepatitis Council of Western Australia

Heterosexual HIV/AIDS Service (Pozhet), Sydney

Liverpool Sexual Health (Bigge Park Centre), Sydney

Livingstone Road Centre, Sydney

Multicultural HIV/AIDS and Hepatitis C Service NSW

National Association of People Living with HIV/AIDS (NAPWA)

National Centre in HIV Epidemiology and Clinical Research (NCHECR), The University of New South Wales, Sydney

NSW Department of Health (NSW Health) and area health services

NSW Users and AIDS Association (NUAA)

Parramatta Sexual Health, Sydney

Pharmacy Guild of Australia, NSW Branch

Positive Life NSW (formerly People Living with HIV/AIDS NSW)

Queensland Association for Healthy Communities (formerly Queensland AIDS Council)

Queensland Health Department

Queensland Injectors Health Network

Queensland Positive People

Royal Prince Alfred Hospital, Sydney

Sex Workers Outreach Project, Sydney

Tree of Hope, Sydney

Victorian AIDS Council/Gay Men's Health Centre

Victorian Department of Human Services

VIVAIDS, Melbourne

Western Australian AIDS Council

Western Australian Centre for Health Promotion Research

Western Suburbs Haven, Blacktown, NSW

.

Glossary

ART antiretroviral therapy/treatment

HIV-seroconcordant relationship a relationship in which both partners are of the same HIV serostatus, either HIV-positive or HIV-negative

HIV seroconversion the process of becoming HIV-positive (confirmed by antibody testing); the appearance of HIV antibodies in the blood serum. Seroconversion is often accompanied by a flu-like illness

HIV seroconverter someone who is in the process of seroconverting to HIV, i.e. becoming antibody-positive to HIV

HIV-serodiscordant relationship a relationship in which both partners are known (as a result of testing) to be of different HIV serostatus, e.g. HIV-positive and HIV-negative

HIV-serononconcordant relationship a relationship in which the HIV status of at least one partner in the relationship is not known, e.g. HIV-positive and untested, HIV-negative and untested or both untested

HIV serostatus a person's antibody status in relation to HIV infection, i.e. HIV-negative (confirmed by testing), HIV-positive (confirmed by testing) or unknown (i.e. untested)

MSM men who have sex with men

negotiated safety agreement a definite spoken agreement between a **seroconcordant** couple to have unprotected sex with each other, but not to have sex (or unprotected sex) with other people

post-exposure prophylaxis a drug or procedure used to reduce the risk of infection after exposure has occurred, e.g. antiretrovirals administered to reduce the risk of HIV transmission after a condom has broken during sex

STI sexually transmissible infection

UAI unprotected anal intercourse

UAIC unprotected anal intercourse with casual partners

UAIR unprotected anal intercourse with regular partners

Preface

This report *HIV/AIDS, hepatitis and sexually transmissible infections in Australia: Annual report of trends in behaviour 2008* is the tenth in our annual series reviewing behavioural data relevant to the transmission of human immunodeficiency virus (HIV), viral hepatitis and other sexually transmissible infections (STIs) in Australia. It examines behavioural and attitudinal data relevant to the formation and evaluation of prevention strategies and to understanding individuals' experiences of treatment of these infections. It also includes data relating to the social aspects of treatment and care of those infected with hepatitis C virus and HIV, including those living with acquired immune deficiency syndrome (AIDS). This report does not include all research done by the National Centre in HIV Social Research but concentrates on those data that provide measures of trends over time, other repeated measures and information relating to key emerging issues.

Unless stated otherwise, all data reported are for the five-year period 2003 to 2007. This review builds on the previous reports in this series by comparing data from the past year with data from the previous four. The best sources for historical data pertaining to trends over time in behaviour relevant to the risk of HIV transmission for the period 1984 to 1995 can be found in *Valuing the past … investing in the future: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96* (Feachem, 1995) and its Technical Appendices 3 (Crawford et al., 1996), 4 (Crofts et al., 1995) and 5 (Smith et al., 1995). For the period following the Feachem evaluation, consult the previous nine reports in this series, the first of which was titled *HIV/AIDS and related diseases in Australia: Annual report of behaviour 1999* (Imrie & Frankland, 2007; National Centre in HIV Social Research, 1999, 2000, 2001; Rawstorne et al., 2005; Richters, 2006; Van de Ven et al., 2002, 2003, 2004).

To gain the most comprehensive overview of factors relating to the prevention, transmission and management of these infections, this review should be used as a companion to *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2008* compiled by the National Centre in HIV Epidemiology and Clinical Research (NCHECR) (National Centre in HIV Epidemiology and Clinical Research, 2008).

We acknowledge and thank a large number of organisations and people involved in health throughout Australia for their contributions and support of this project. In particular, we acknowledge the contributions of the National Centre in HIV Epidemiology and Clinical Research at the University of New South Wales, Sydney, the Australian Research Centre in Sex, Health and Society at La Trobe University, Melbourne, and all of our community partners.

Executive summary

Sexual practice and partnerships among gay-identified and other men who have sex with men

There has been relatively little change in patterns of sexual practice and partnerships among gay-identified men who participated in the Gay Community Periodic Surveys over the past few years.

Partnerships

Regular partnerships Overall, 60% to 70% of homosexually active men in the periodic surveys reported having had sex with a regular partner. These proportions have remained stable since 2003, with the exception of significant increases in Sydney ($p < .001$) and Queensland ($p < .05$).

Casual partnerships Between 60% and 70% of participants in the periodic surveys reported having had sex with a casual partner in the six months prior to the survey. Since 2003 decreasing proportions of men have reported having had casual partners in Sydney ($p < .01$), Melbourne ($p < .05$) and Adelaide ($p < .001$).

Sex with both regular and casual partners Between 35% and 45% of our survey respondents reported having had sex with both regular and casual partners. The highest proportion to have done so was in Queensland, where there has been a significant increase in this proportion since 2003 ($p < .05$). Slightly lower proportions in the remaining states have remained relatively stable over time.

Sexual practices

Anal intercourse Around 80% of homosexually active men reported having engaged in any anal intercourse in the six months prior to data collection. This figure shows considerable stability overall, with no significant trends emerging since 2003 at any of the survey sites.

Unprotected anal intercourse Between 45% and 50% of participants in the periodic surveys reported having engaged in any unprotected anal intercourse (UAI). Over time there have been significant increases in the proportions of men who reported having had unprotected anal intercourse in Melbourne ($p < .05$) and Queensland ($p < .01$). In other states the proportions of men engaging in unprotected anal intercourse appear to have reached a plateau.

Unprotected anal intercourse with regular partners Between 50% and 60% of men with regular partners reported having had any unprotected anal intercourse with their regular partners (UAIR). These proportions have remained stable in all states since 2003, with the exception of a significant increase in Adelaide ($p < .05$).

Unprotected anal intercourse with casual partners About 30% of homosexually active men with casual partners reported having engaged in any unprotected anal intercourse with their casual partners (UAIC). Following increases early in the millennium, since 2003 there has been a decrease in the prevalence of UAIC in Sydney ($p < .01$), an increase in Queensland ($p < .01$) and no significant change in any of the other states.

HIV-positive men are more likely than HIV-negative men to engage in UAIC; however, some unprotected anal intercourse reported by HIV-positive men is likely to be with partners who are also HIV-antibody-positive. Over the period 2003 to 2007 there was a significant downward trend in the proportion of HIV-negative men who reported any UAIC in Sydney ($p < .05$) and a significant increase in Queensland ($p < .01$). There was little change in the other states.

Agreements

An agreement to have unprotected anal intercourse within a relationship can be considered as a safe sex agreement only if both partners have been tested for HIV and each knows the other's HIV status.

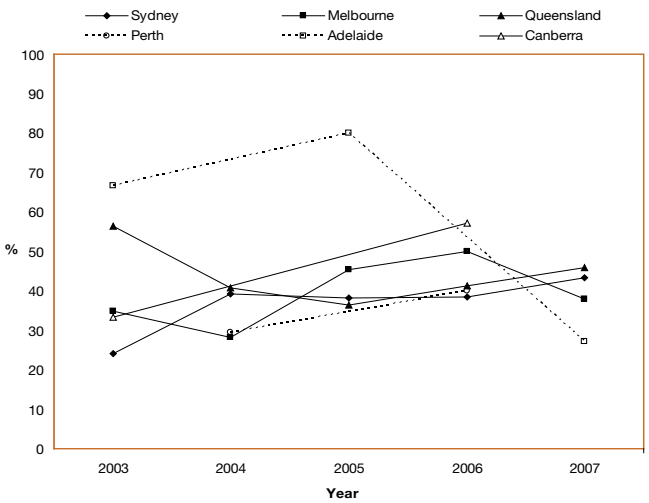
- 40% to 60% of HIV-positive men in seroconcordant relationships who participated in the periodic surveys reported having safe sex agreements. There have been no significant changes in these proportions since 2003.
- 70% to 80% of HIV-negative men in seroconcordant relationships reported having safe sex agreements. These proportions have remained stable over time, aside from a significant increase in Victoria ($p < .01$).
- 25% to 35% of men in serononconcordant relationships reported having a safe sex agreement. There have been no significant changes in these proportions since 2003.

- In each state only small numbers of men with negotiated safety agreements broke them and engaged in UAIC. Aside from a decrease in Melbourne ($p < .05$), these proportions have not changed significantly since 2003.

Seroconcordance and regular partnerships

Among HIV-positive men, those in regular relationships in which their primary partner was also HIV-positive reported the highest rates of UAIR across all states.

Of potentially some concern, since 2003 in Sydney there has been a significant increase in the proportion of HIV-positive men who reported having had UAIR with an HIV-negative regular partner ($p < .05$). Changes in other states are not significant due to small numbers of men in the samples.



Proportion of HIV-positive men who reported having engaged in unprotected anal intercourse with HIV-negative regular partners, 2007

Note: Data in this figure are based on small numbers of men and should be interpreted with caution.

Seroconcordance and casual partnerships in the Health in Men and Positive Health cohorts

HIV-negative men were more likely than HIV-positive men to have reported sex with casual partners but, over time, the proportions of HIV-negative men who reported having had sex with casual partners have declined, while the proportions of HIV-positive men who reported having done so have increased significantly.

The proportions of men who reported having had any HIV-serodiscordant casual partners, and having had UAIC with those partners, increased significantly over time in both cohorts.

Testing for HIV and other sexually transmissible infections

HIV testing

Among all respondents, 85% to 95% reported having ever been tested for HIV. These proportions have remained stable over time in all states, with the exception of Queensland where testing rates in the early 2000s were much lower than in other states but have increased significantly ($p < .01$) since 2003 to come up to a level comparable with the other states.

Between 40% and 55% of respondents had been tested for HIV in the six months prior to data collection. The only significant change in these data since 2003 has been an increase in the proportion of men having been recently tested in Queensland ($p < .001$).

Among homosexually active men under the age of 25, 70% to 80% reported having ever been tested for HIV. Since 2003 these proportions have remained stable, apart from an increase in Queensland ($p < .001$).

Testing for STIs other than HIV

Over the past five years there have been significant increases in the proportions of men who reported having undergone individual tests for STIs other than HIV.

However, the rates of 'any' testing for these STIs have remained stable over time, suggesting that gay men are having more comprehensive STI screening rather than there being an increase in the overall numbers of men undergoing STI testing.

Living with HIV

Trends in the need for care and support among homosexually active men living with HIV

Updated data indicate that the most commonly reported health needs among men in the Positive Health cohort were a doctor with experience in HIV management (95%), a doctor who is an antiretroviral prescriber (81%) and a hospital pharmacy (74%).

Access to services was high, with less than 10% of HIV-positive men reporting any difficulty in accessing any health-related services. The issues of most concern were related to the availability of appointments, inadequate opening hours and the cost of some services, particularly dental care.

Uptake of antiretroviral treatment, and viral load

Across all states, approximately two-thirds of all HIV-positive men reported being on antiretroviral treatment (ART) in 2007. No significant trends have emerged since 2003, with the exception of an increase in the proportion of HIV-positive men on ART in Adelaide. There is substantial regional variation, due mainly to small numbers in some surveys.

Drug use and drug treatment

Recreational drug use among homosexually active men

Among men who participated in the Gay Community Periodic Surveys, between 50% and 70% reported any illicit drug use. There is strong regional variation in these figures; the Sydney Gay Community Periodic Survey shows that there has been more extensive drug use in Sydney than in other Australian cities, although this difference is decreasing over time. In recent years, rates of any illicit drug use have decreased significantly in the Sydney periodic survey ($p < .001$), while significant increases have been observed in Queensland ($p < .05$). In most states, between 4% and 6% of homosexually active men reported any injecting drug use in the six months prior to data collection. This figure has been stable for nearly a decade.

Illicit drug use among young people attending music festivals in New South Wales

Among young people attending music festivals in New South Wales, illicit drug use was common, with more than half (54.9%) of respondents reporting use of any illicit drug in the 12 months prior to the survey. Marijuana was the most commonly reported illicit drug used in the preceding 12 months (by 43.9%), followed by ecstasy (used by 34%) and amphetamine/methamphetamine (used by 27.6%).

In general, respondents perceived illicit drugs to be easily accessible. In 2007 the majority (82.9%) of participants rated at least one illicit drug as being 'fairly easy' or 'very easy' to obtain, and more than half (57.7%) rated at least three illicit drugs as 'easy' to obtain.

Injecting drug use among pharmacy Fitpack users in New South Wales

In 2007, among those who obtained needles and syringes from community pharmacies ($N = 670$), the drug most commonly reported to have been recently injected was heroin (by 41.2%), followed by meth/amphetamine (speed, base, ice) (by 37.3%), methadone (by 6.7%) and cocaine (by 5.2%).

In the month prior to the survey, about a third (34.9%) of respondents had injected drugs more often than once per day. Among the remainder, 19% had injected once per day, 21.9% more often than weekly but not daily, and 15.1% less than weekly. Six per cent ($n = 42$) reported not having injected drugs in the previous month.

Of the 285 participants who reported that they had a regular partner, approximately two-thirds (68.8%) had a partner who had also injected drugs in the previous six months and just over half (51.5%) had shared a needle with their partner in the previous six months.

Hepatitis infections

Knowledge of risk factors for hepatitis C transmission among pharmacy Fitpack users

Our 2007 surveys of injecting drug users who obtained needles and syringes from community pharmacies showed the following:

- About a third (36.1%) reported that in the previous month they had not used a new, sterile needle and syringe on each occasion of injecting.
- 27.1% reported having, in the previous month, reused a needle and syringe that someone else had already used.
- 85.9% reported having ever been tested for hepatitis C and 63.5% of this group reported having been tested in the previous 12 months. Almost half (44.8%) of those who had been tested reported that they were positive for hepatitis C.
- Around 90% knew that hepatitis C was transmitted via the sharing of needles and syringes and other equipment used for injecting.
- Fewer were aware that there was more than one type of hepatitis C or that treatment did not always cure hepatitis C, indicating that the consequences of contracting hepatitis C may not be fully appreciated among this population.

Knowledge of hepatitis C among young people attending music festivals in New South Wales

Our survey among young people attending music festivals in New South Wales showed the following:

- Almost 75% knew that hepatitis C could be contracted via shared needles used for injecting drugs, and about 60% that it could be transmitted via injecting equipment other than needles.
- Almost 30% did not know that hepatitis C could be transmitted via unsterile tattooing or body piercing.

1 Sexual practice and partnerships

Much of the work of the National Centre in HIV Social Research (NCHSR) focuses on documenting sexual and other risk practices related to the transmission and acquisition of HIV, hepatitis C and other sexually transmissible infections (STIs) among the most affected population groups in Australia. Considerable work over the period covered by this report has looked specifically at the sexual and other risk practices of homosexually active men, the group most at risk of HIV in Australia. However, as this report demonstrates, our research also examines the sexual and other risk practices of other groups at elevated risk of these infections.

Throughout this report a distinction is made between regular and casual sexual partners. This distinction is important because the meaning of a specific sexual behaviour often depends on whether it occurs with a regular partner, for example, within a committed relationship with a boyfriend or lover, or in the context of a casual sexual encounter such as a 'one-night stand'. The strategies adopted and behaviours enacted to reduce sexual risk often take account of the context in which a sexual event is happening and, more importantly, of the type of partner (regular partner or casual encounter) with whom it is happening (Crawford et al., 2006). Among homosexually active men this distinction can be especially relevant.

Notes on the presentation of quantitative data

(1) Throughout the report, the letter '*N*' denotes the denominator in each specific analysis. This is usually all the people in the study, or all the people who responded to a particular question. On the other hand, '*n*' denotes frequency, corresponding to the proportion (the subset of people) who, for example, reported a particular practice or answered 'yes' to a specific question. Unless stated otherwise, missing values have been ignored and *N* refers to the number of people responding to a particular question.

(2) For the purpose of consistency, and unless otherwise indicated, all comparisons, either over time or between states and territories, are made using the entire sample (*N*), that is, all the respondents who completed either a questionnaire or a single item depending on the unit of analysis. However, because of variations in sample composition across time and location, it is sometimes necessary to restrict samples according to specified criteria to ensure that comparisons are genuine, and to give an accurate reflection of the true differences, for example, in specific practices over time. Where a sample has been restricted, this is clearly indicated.

1.1 Gay-identified and other men who have sex with men

Iryna Zablotska and Andrew Frankland

Data on homosexually active men described in this report come mainly from studies based in the state and territory capitals of Australia. Previous studies undertaken by NCHSR of the general Australian population (Smith et al., 2003) and of homosexually active men (Kippax et al., 1994; Crawford et al., 1998; Van de Ven et al., 2001) have consistently demonstrated that targeted studies in capital cities tend to reach men who are more likely to be closely attached to gay communities than is the case for homosexually active men elsewhere. Characteristically, community-attached gay men tend to have more gay friends, spend more time with gay men and have sex only with other men. Data from state-based studies such as the Gay Community Periodic Surveys, the Health in Men cohort of HIV-negative men and the Positive Health cohort of HIV-positive people *mainly* involve men recruited from gay communities. Other studies undertaken by NCHSR, such as the *e-male* survey, described in more detail in this report, specifically try to include men who are less attached to the gay community, whose experiences may be significantly different from those of other homosexually active men (see Section 6.1, page 39).

The Sydney Gay Community Periodic Surveys, funded by the New South Wales Department of Health, have been carried out in Sydney every six months since February 1996. Results from these surveys have been reported as regular updates and as annual summary reports (Zablotska et al., 2007c). In this report, Sydney Gay Community Periodic Survey data are aggregated and reported as annual figures.

Gay Community Periodic Surveys are also carried out annually in Melbourne (Frankland et al., 2007a) and Queensland (Frankland et al., 2007b), and every two years in Adelaide (Hull et al., 2006) and Perth (Zablotska et al., 2007a). The Canberra survey is carried out every three years (Zablotska et al., 2007b). The annual Queensland Gay Community Periodic Survey has covered Brisbane, the Sunshine Coast and the Gold Coast every year since 1998, with Cairns included from 1999.

In each of the periodic surveys, men were asked about their sexual practice in the six months prior to interview. Key indicators in this area were:

- the proportion of men having regular and/or casual partners
- the proportion of men engaging in any unprotected anal intercourse (UAI)
- the proportion of men engaging in unprotected anal intercourse with regular partner(s) (UAIR)
- the proportion of men engaging in unprotected anal intercourse with casual partner(s) (UAIC).

The proportions of men engaging in these practices over the period 2003 to 2007 are reported in Tables 1 to 6 that follow.

Partnerships among men: regular and casual

Table 1 shows the proportions of men having sex with regular or casual partners and who reported having had sex with both regular and casual partners in the six months prior to the survey. This is a derived value and these categories are therefore not mutually exclusive: men who had sex with both regular and casual partners may also be counted as having had sex with the other partner types.

Overall, 60% to 70% of homosexually active men in our surveys reported having had sex with a regular partner. These proportions have remained stable in most samples since 2003, with the exception of significant increases in Sydney ($p < .001$) and Queensland ($p < .05$).

Similar proportions of men reported having had sex with casual partners. There have been significant decreases over time in the proportions of respondents having had casual partners in Sydney ($p < .01$), Melbourne ($p < .05$) and Adelaide ($p < .001$). No significant changes have been observed in the remaining states since 2003.

Approximately 35% to 45% of our survey respondents reported having had sex with both regular and casual partners in the six months prior to data collection. The highest proportion to have done so was in Queensland, where there has been a significant increase in this proportion since 2003 ($p < .05$). Slightly lower proportions in the remaining states have remained relatively stable over time.

Sexual practices: anal intercourse

For homosexually active men, unprotected anal intercourse continues to be the most important risk practice for HIV transmission. Tables 2 and 3 show the proportions of men in different states who reported having engaged in any anal intercourse and any unprotected anal intercourse in the six months prior to data collection. Tables 4a to 5b show the proportions who reported having had any unprotected anal intercourse with regular or casual partners, including anal intercourse without ejaculation (i.e. 'withdrawal').

Approximately 80% of gay-community-attached men reported having engaged in any anal intercourse in the six months prior to data collection. These figures show considerable stability overall, with no significant trends emerging since 2003 at any of the survey sites.

Table 3 shows the proportion of men in each sample who reported having engaged in unprotected anal intercourse, including anal intercourse without ejaculation (with 'withdrawal'), in the six months prior to data collection. Over time there have been significant increases in the proportions of men who reported having had unprotected anal intercourse in both Melbourne ($p < .05$) and Queensland ($p < .01$). In other states, the proportions of men engaging in unprotected anal intercourse appear to have reached a plateau.

Table 1: Proportions (%) of men who reported having sex with (a) regular partner(s), (b) casual partners, and (c) both regular and casual partners[1]—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N[2]	%	*N*	%	*N*	%	*N*	%	*N*	%
(a) Regular partner(s)										
Sydney	2541	59.6	2821	61.6	3413	60.1	3732	63.3	2342	65.4
Melbourne	2064	62.9	1962	65.0	1804	64.6	1988	65.7	2043	64.0
Queensland	1511	59.4	1667	61.8	1382	61.6	1276	62.4	1417	64.4
Perth			1014	65.3			927	64.9		
Adelaide	834	61.3			629	65.2			527	61.3
Canberra	255	62.7					282	66.0		
(b) Casual partners										
Sydney	2541	70.0	2821	69.7	3413	70.0	3732	68.8	2342	65.0
Melbourne	2064	69.2	1962	68.2	1804	68.5	1988	65.9	2043	66.4
Queensland	1511	69.9	1667	69.3	1382	70.5	1276	66.8	1417	69.2
Perth			1014	61.2			927	61.9		
Adelaide	834	72.4			629	64.1			527	62.4
Canberra	255	70.6					282	59.2		
(c) Both regular and casual partners										
Sydney	2541	37.5	2821	38.9	3431	37.7	3732	39.7	2342	39.6
Melbourne	2064	40.1	1962	42.0	1804	41.9	1988	40.2	2043	38.7
Queensland	1511	39.8	1667	40.3	1382	42.5	1276	40.0	1417	44.3
Perth			1014	37.1			927	37.1		
Adelaide	834	40.6			629	37.8			527	36.0
Canberra	255	38.8					282	34.4		

[1] Based on responses to questions about sexual behaviour with regular and/or casual partners.

[2] '*N*' refers to the total number in the study at the time, on which the percentage calculation is based. Thus in 2003 in the Sydney periodic survey, 1514 men (59.6% of 2541) reported that they had had sex with a regular partner.

Table 2: Proportions (%) of men who had engaged in any anal intercourse—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	2541	82.3	2821	83.5	3413	83.7	3732	83.9	2342	82.2
Melbourne	2064	79.8	1962	79.4	1804	81.7	1988	81.7	2043	80.9
Queensland	1511	80.3	1667	80.6	1382	80.5	1276	80.3	1417	81.0
Perth			1014	77.6			927	78.5		
Adelaide	834	78.7			629	79.2			527	73.8
Canberra	255	83.5					282	77.3		

Table 3: Proportions (%) of men who had engaged in any *unprotected* anal intercourse—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	2541	47.4	2821	49.3	3413	48.2	3732	47.3	2342	47.4
Melbourne	2064	43.7	1962	45.3	1804	47.5	1988	48.6	2043	45.9
Queensland	1511	46.0	1667	46.3	1382	44.4	1276	47.9	1417	50.9
Perth			1014	45.8			927	49.7		
Adelaide	834	42.1			629	46.1			527	47.1
Canberra	255	42.4					282	45.4		

Table 4a (based on total samples) and Table 4b (based on restricted samples of those who reported any sex with *regular* partners) show the men who reported any unprotected anal intercourse with their regular partners (UAIR), including anal intercourse without ejaculation, during the six months prior to the survey. Over the past five years there have been significant increases in the proportions of men engaging in UAIR in Sydney and Queensland ($p < .05$ for each) but there has been little change in other states. Figure 1 presents graphically the data from Table 4a.

Because it is based on a restricted sample (men who had engaged in any unprotected anal intercourse with regular partners), Table 4b provides a more helpful representation of the sexual practice and sexual risk that occur in the context of gay men's regular relationships. The proportions of men with regular partners who had engaged in any UAIR since 2003 have remained stable in all states, with the exception of a significant increase in Adelaide ($p < .05$).

Table 5a (based on total samples) and Table 5b (based on restricted samples of those who had reported any sex with *casual* partners) show the men who reported any unprotected anal intercourse with casual partners (UAIC), including anal intercourse without ejaculation, during the six months prior to the survey. Table 5a gives the prevalence of the practice in the whole sample population, while Table 5b gives a more accurate reflection of the practice among those men who had sex with casual partners. Since 2003 the only significant changes in rates of UAIC were a decrease in Sydney ($p < .01$) and an increase in Queensland ($p < .01$). Figure 2 presents graphically the data from Table 5a.

Table 4a: Proportions (%) of men who had engaged in any unprotected anal intercourse with regular partners (UAIR), based on all men who participated—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	2541	33.4	2821	36.1	3413	35.2	3732	35.1	2342	37.4
Melbourne	2064	33.4	1962	36.5	1804	37.2	1988	38.6	2043	34.4
Queensland	1511	34.7	1667	34.9	1382	33.1	1276	36.7	1417	39.0
Perth			1014	36.6			927	39.6		
Adelaide	834	31.8			629	37.0			527	36.0
Canberra	255	32.9					282	37.6		

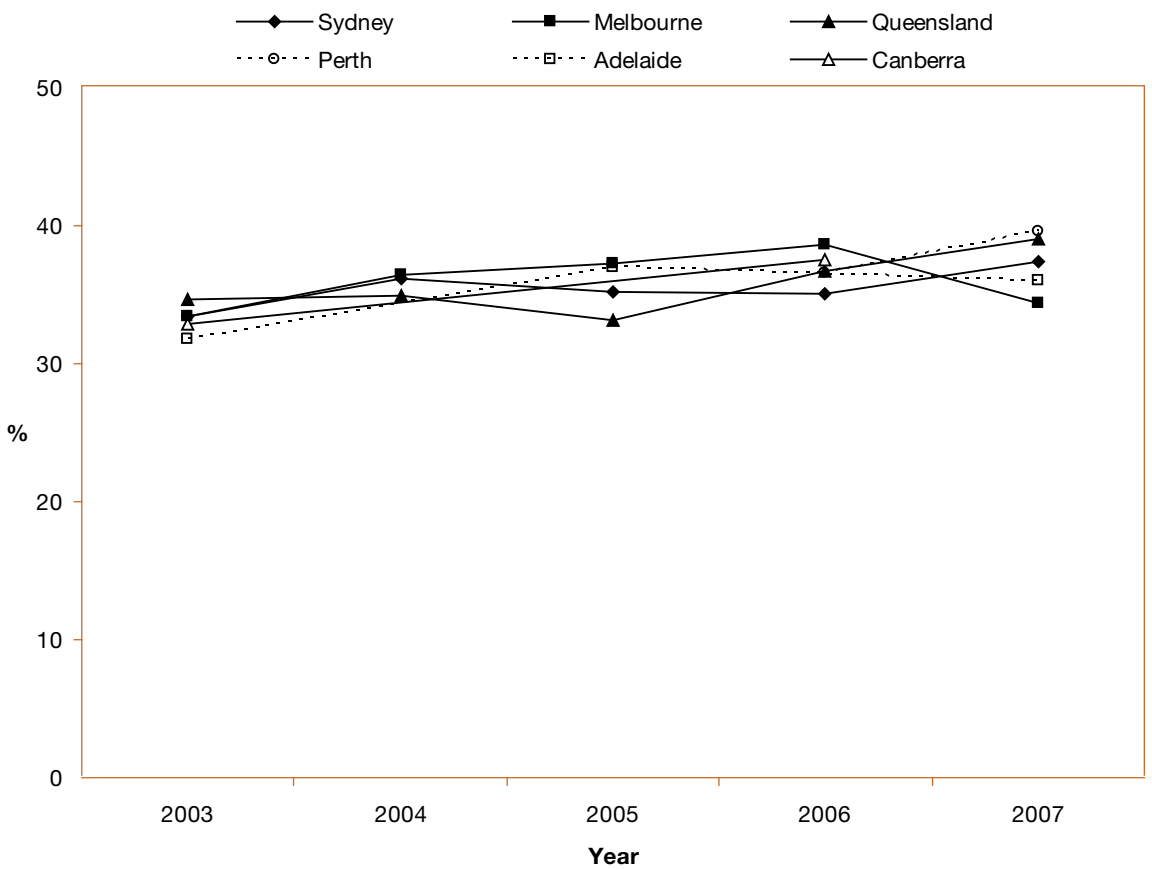


Figure 1: Proportions (%) of men who reported any unprotected anal intercourse with regular partners (UAIR) in the six months prior to the survey, based on all men who participated

Table 4b: Proportions (%) of men who had engaged in any unprotected anal intercourse with regular partners (UAIR), among men who reported any sex with a regular partner in the six months prior to the survey (i.e. restricted sample)—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	1514	56.0	1738	58.6	2051	58.6	2362	55.4	1532	57.2
Melbourne	1298	53.2	1276	56.2	1165	57.6	1307	58.8	1308	53.7
Queensland	898	58.4	1031	56.4	851	53.8	796	58.8	912	60.5
Perth			662	56.0			602	61.0		
Adelaide	511	51.9			410	56.8			323	58.8
Canberra	160	52.5					186	57.0		

Table 5a: Proportions (%) of men who had engaged in any unprotected anal intercourse with casual partners (UAIC), based on all men who participated—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	2541	22.9	2821	22.4	3413	21.4	3732	20.8	2342	19.3
Melbourne	2064	20.5	1962	17.9	1804	20.3	1988	19.2	2043	19.4
Queensland	1511	21.1	1667	21.7	1382	22.1	1276	23.1	1417	25.1
Perth			1014	17.4			927	20.7		
Adelaide	834	18.0			629	15.6			527	19.3
Canberra	255	16.1					282	14.5		

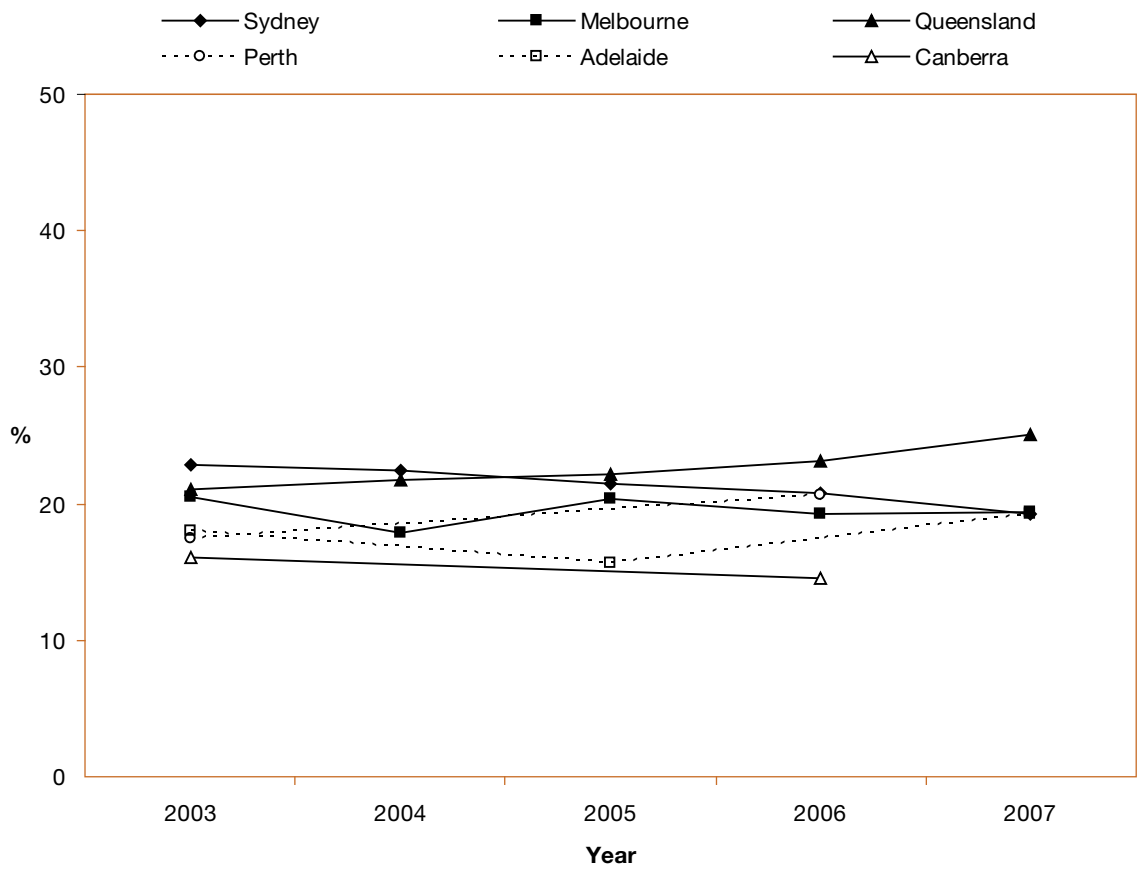


Figure 2: Proportions (%) of men who reported any unprotected anal intercourse with casual partners (UAIC) in the six months prior to the survey, based on all men who participated

Rates of UAIC rose from the mid- to late 1990s to 2001, and since then have either increased more slowly or remained stable (Richters, 2006).

Table 5b is based on only those men who reported any sex with a casual partner and shows the proportions of men who reported having engaged in any UAIC, including anal intercourse without ejaculation, during the six months prior to the survey. Over time, the Sydney periodic surveys show a significant decrease in the proportion reporting any UAIC ($p < .05$); however, increases in the prevalence of UAIC have been observed in Queensland since 2003 ($p < .01$).

Table 6 shows the proportions of men who reported any UAIC during the six months prior to the surveys, by HIV serostatus of the respondent. The data confirm that HIV-positive men are more likely to engage in UAIC than HIV-negative men; however, some unprotected anal intercourse reported by HIV-positive men is likely to be with partners who are also HIV-antibody-positive (Rawstorne et al., 2007). In the case of the Adelaide survey, there are too few HIV-positive men in the samples to enable the calculation of reliable proportions, so only the frequencies of men who gave a particular answer have been reported. Over the period 2003 to 2007 there was a significant downward trend in UAIC among HIV-negative men in Sydney ($p < .05$) and a significant increase in UAIC among HIV-negative men in Queensland ($p < .01$). There was little change in the other states.

Table 5b: Proportions (%) of men who reported any unprotected anal intercourse with casual partners (UAIC), among men who reported any sex with a casual partner in the six months prior to the survey (i.e. restricted sample)—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	1779	32.8	1966	32.2	2388	30.5	2568	30.3	1523	29.7
Melbourne	1429	29.7	1338	26.2	1235	29.7	1310	29.1	1357	28.7
Queensland	1056	30.2	1156	31.2	974	31.3	852	34.6	980	36.3
Perth			621	28.3			574	33.4		
Adelaide	604	24.8			403	24.3			329	31.0
Canberra	180	22.8					167	24.6		

Table 6: Proportions (%) of men who had engaged in any unprotected anal intercourse with casual partners (UAIC), by HIV serostatus of respondent[1], among men who reported any sex with a casual partner in the six months prior to the survey (i.e. restricted sample)—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney										
HIV-positive	275	58.9	325	55.7	381	54.1	398	52.0	208	58.2
HIV-negative	1312	27.8	1469	27.8	1802	25.9	1954	26.3	1171	23.9
Melbourne										
HIV-positive	158	57.0	125	47.2	127	50.4	120	57.5	125	54.4
HIV-negative	1083	26.5	1050	23.8	932	27.7	1014	26.4	1021	26.0
Queensland										
HIV-positive	84	56.0	98	48.0	66	45.5	55	58.2	64	64.1
HIV-negative	810	28.1	896	29.0	761	30.5	659	33.1	778	34.8
Perth										
HIV-positive[2]			29	17/29			35	16/35		
HIV-negative			484	26.7			441	31.7		
Adelaide										
HIV-positive[2]	35	15/35			27	6/27			34	7/34
HIV-negative	497	24.5			310	25.8			252	32.5
Canberra										
HIV-positive[2]	11	4/11					9	3/9		
HIV-negative	138	21.0					140	22.9		

[1] This table excludes men whose HIV serostatus was unknown, either because they reported that they had not been tested or because they did not provide this information.

[2] Percentages are not reported, as the number of HIV-positive men in these samples is small, which makes the calculation of proportions unreliable.

1.2 Agreements among homosexually active men regarding unprotected anal intercourse

Iryna Zablotska and Andrew Frankland

Earlier research at NCHSR highlighted the importance of risk reduction strategies in preventing HIV transmission, including agreements about sex such as 'negotiated safety' (Kippax et al., 1993; Kippax et al., 1997; Van de Ven et al., 1999; Crawford et al., 2001). More recently research has been carried out on safe sex agreements more broadly; a 'safe sex' agreement is identified as a clear spoken agreement between partners about anal intercourse within the relationship as well as a clear, spoken agreement that there will be no unprotected anal intercourse with casual partners outside the relationship. In the most recent article, Prestage et al. (2008) examined trends in such agreements about sex among gay men with regular partners in Sydney, Melbourne and Queensland. This analysis suggested an increase in the proportion of men in HIV-negative seroconcordant relationships. About three-quarters of men with a regular partner had negotiated an agreement about sex within their relationship. There was little change over time in the likelihood of having negotiated such agreements; there were, however, changes over time in the nature of these agreements. Over time, more men in HIV-serodiscordant relationships agreed to have unprotected anal intercourse within the relationship ($p < .001$). Increasing proportions of men in HIV-negative seroconcordant relationships agreed on a monogamous arrangement with their regular partner ($p < .001$), and fewer men in general specified consistent condom use with casual partners ($p < .001$). Some of these changes in negotiated agreements represent an increase in the potential for HIV transmission.

Table 7 shows, separately for men in HIV-seroconcordant and -serononconcordant relationships, the proportions of men with regular partners who had 'safe sex' agreements with their partners. Safe sex agreements were identified on the basis of a clear spoken agreement between partners about anal intercourse *within* the relationship as well as a clear, spoken agreement that there would be no unprotected anal intercourse with casual partners *outside* the relationship.

Only a small number of men each year have identified themselves as being in HIV-positive seroconcordant

Table 7: Proportions (%) of men who reported any sex with a regular partner and who had a 'safe sex' agreement, by HIV serostatus of relationship[1]—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney										
HIV-positive concordant	63	31.7	89	50.6	86	40.7	101	46.5	68	44.1
HIV-negative concordant	654	77.7	744	75.7	880	73.9	1047	72.5	558	75.6
Nonconcordant	360	33.9	342	33.9	407	32.9	476	33.8	257	28.0
Melbourne										
HIV-positive concordant	30	50.0	38	57.9	35	48.6	50	38.0	32	59.4
HIV-negative concordant	548	70.4	554	70.8	458	72.1	569	74.7	558	76.2
Nonconcordant	320	35.0	288	31.9	267	36.7	284	32.4	317	30.3
Queensland[2]										
HIV-positive concordant[3]	25	11/25	33	17/33	20	9/20			17	6/17
HIV-negative concordant	401	74.8	446	69.1	364	69.8			350	72.9
Nonconcordant	225	31.6	261	28.0	189	41.3			206	31.1
Perth										
HIV-positive concordant[3]			9	2/9			5	4/5		
HIV-negative concordant			332	74.1			277	75.8		
Nonconcordant			158	31.0			138	24.6		
Adelaide										
HIV-positive concordant[3]	3	3/3			5	5/5			11	9/11
HIV-negative concordant	234	68.4			189	79.4			162	71.6
Nonconcordant	122	26.2			102	27.5			74	32.4
Canberra										
HIV-positive concordant[3]	2	0/2					3	3/3		
HIV-negative concordant	73	79.5					99	71.7		
Nonconcordant[3]	31	12/31					29	7/29		

[1] Data relating to men in positive–positive and negative–negative seroconcordant relationships are presented separately. Men who reported being in serodiscordant and serononconcordant relationships are combined in one category, 'Nonconcordant'.

[2] In 2006, questions to elicit information about agreements were not included in the Queensland periodic survey.

[3] Percentages are not reported, as the number of men in these samples is small, which makes the calculation of proportions unreliable.

relationships and this results in fluctuations in the proportions. In states with larger samples, 35% to 60% of these men reported having safe sex agreements. There have been no significant changes in these proportions since 2003.

Among men who reported being in HIV-negative seroconcordant relationships, 70% to 75% indicated that they had a safe sex agreement with their partner. While these proportions have remained stable across most states, since 2003 there has been a significant increase in Victoria ($p < .01$). Among serononconcordant couples in most samples, 25% to 35% reported having a safe sex agreement. There have been no significant changes in these proportions since 2003.

Negotiated safety and unprotected anal intercourse with casual partners

Table 8 shows the proportions of HIV-negative men who had a negotiated safety agreement with their regular partner and who broke that agreement and engaged in unprotected anal intercourse with one or more casual partners. Only the Sydney, Melbourne and Queensland periodic surveys provide sufficient sample sizes for reliable calculations.

In each state, only small numbers of men with negotiated safety agreements broke them and engaged in UAIC. Aside from a decrease in Melbourne ($p < .05$), these proportions have not changed significantly since 2003.

Table 8: Proportions (%) who reported having engaged in unprotected anal intercourse with a casual partner in the six months prior to data collection, among HIV-negative men who reported having a negotiated safety agreement with their regular partner—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	276	9.4	311	9.3	346	5.2	367	7.1	215	6.1
Melbourne	192	11.5	213	4.7	184	6.5	217	4.6	217	5.5
Queensland[1]	141	7.8	132	3.8	117	6.8			133	6.8
Perth			129	7.8			121	8.3		
Adelaide	82	7.3			92	9.8			65	4.6
Canberra	38	7.9					33	0		

[1] Questions to elicit information about agreements among regular partners were not included in the Queensland survey questionnaire in 2006.

Table 9: Proportions (%) of HIV-positive men who had engaged in unprotected anal intercourse with their regular partner in the six months prior to the survey, by HIV serostatus of partner[1]—Gay Community Periodic Surveys, 2003–2007

Partner type	2003		2004		2005		2006		2007	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Sydney										
HIV-positive partner	63	82.5	89	74.2	86	73.7	101	79.2	68	85.3
HIV-negative partner	79	24.1	79	39.2	89	38.2	109	38.5	67	43.3
Partner of unknown HIV status	9	55.6	16	50.0	15	53.3	15	53.3	9	33.3
Melbourne										
HIV-positive partner	30	80.0	38	68.4	35	80.0	50	86.0	32	78.1
HIV-negative partner[2]	46	16/46	32	9/32	33	15/33	30	15/30	29	11/29
Partner of unknown HIV status[2]	7	5/7	4	2/4	7	5/7	4	1/4	7	4/7
Queensland										
HIV-positive partner[2]	25	16/25	33	25/33	20	14/20	19	16/19	17	16/17
HIV-negative partner[2]	16	9/16	27	11/27	22	8/22	17	7/17	24	11/24
Partner of unknown HIV status[2]	4	3/4	8	4/8	4	4/4	3	2/3	5	3/5
Perth										
HIV-positive partner[2]			9	9/9			5	3/5		
HIV-negative partner[2]			17	5/17			15	6/15		
Partner of unknown HIV status[2]			3	1/3			2	0/2		
Adelaide										
HIV-positive partner[2]	3	2/3			3	2/3			11	10/11
HIV-negative partner[2]	15	10/15			10	8/10			11	3/11
Partner of unknown HIV status[2]	1	1/1			0	0			1	0/1
Canberra										
HIV-positive partner[2]	2	2/2					3	2/3		
HIV-negative partner[2]	6	2/6					7	4/7		
Partner of unknown HIV status2	1	0/1					1	0/1		

[1] '*n*' in each case is the number of men who had a regular partner of the specified HIV serostatus. The percentage shown is the proportion of men who had a partner of that serostatus and who had had any unprotected intercourse in the six months prior to the survey.

[2] Percentages are not reported, as the number of men in these samples is small, which makes the calculation of proportions unreliable.

1.3 Sexual practices of gay men living with HIV/AIDS

Seroconcordance and regular partnerships

Iryna Zablotska and Andrew Frankland

Gay Community Periodic Survey data provide information on rates of unprotected anal intercourse between regular partners, and whether or not the partners were of the same HIV serostatus. Among HIV-positive men, those in regular relationships in which their partner was also HIV-positive reported the highest rates of UAIR across all states (see Table 9). Since 2003 there has been a significant increase in the proportion of HIV-positive men who reported having had UAIR with an HIV-negative regular partner in Sydney ($p < .05$). During the same period in Queensland, the proportion of HIV-positive men who reported having had UAIR with an HIV-positive regular partner also increased significantly ($p < .05$).

Seroconcordance and casual partnerships

From 2003 to 2007, among participants in the Positive Health (PH) cohort of HIV-positive men and the Health in Men (HIM) cohort of HIV-negative men, there were differences in sexual behaviour. HIV-negative men were more likely than HIV-positive men to have reported sex with casual partners (see Table 10) but, over time, the proportion of HIV-negative men who reported having had sex with casual partners has declined, while the proportion of HIV-positive men who reported having done so has increased significantly. On the other hand, HIV-positive men were more likely than HIV-negative men to have engaged in UAIC; this proportion has increased over time, while the proportion of HIV-negative men engaging in UAIC has fallen. The proportion of men who reported having had any HIV-serodiscordant casual partners, and having had UAIC with those partners, has increased significantly in both cohorts.

The data from the PH and HIM cohorts relating to sex with partners known to be HIV-serodiscordant are unique to these studies, as all other published studies use 'status-unknown' or 'potentially serodiscordant' casual partners as indicators of UAIC (Zablotska et al., 2008). The results from PH and HIM may suggest an increased willingness on the part of both HIV-negative and HIV-positive men to engage in any UAIC, including UAIC that carries an elevated risk for HIV transmission (i.e. among serononconcordant partners). A possible explanation for this trend is increased optimism due to the success of HIV treatments and the possibility that an HIV-positive man on treatment will have 'low' or 'undetectable' viral load, making him less likely to transmit the virus. Data from PH and HIM also indicate that serodiscordant UAIC is associated with a number of other behaviours previously shown to have been associated with HIV seroconversion (data not shown here). These include high levels of use of recreational or party drugs, looking for sex partners in sex clubs and saunas, and engaging in esoteric sexual practices. Searching for partners on the internet and using Viagra are also associated with serodiscordant UAIC. All these practices are known to be linked, and suggest that serodiscordant UAIC may take place in the context of sexual subcultures or scenes characterised by 'sexual adventurism' (Kippax et al., 1998).

Table 10: Sexual practices with any, and HIV-serodiscordant, casual partners: Positive Health (PH) and Health in Men (HIM) cohorts, 2003–2007

	2003		2004		2005		2006		2007	
	N[1]	%	*N*	%	*N*	%	*N*	%	*N*	%
Any anal intercourse with casual partners										
HIV-positive respondent (PH)	408	60.8	330	62.4	328	62.5	270	69.6	241	70.5
HIV-negative respondent (HIM)	1187	79.0	1109	78.1	955	74.4	866	73.3	–[2]	
Any UAIC										
HIV-positive respondent (PH)	408	34.1	330	37.9	328	43.6	270	46.7	241	40.7
HIV-negative respondent (HIM)	1187	28.9	1109	27.3	955	25.2	866	25.9		
Anal intercourse with serodiscordant casual partners[3]										
HIV-positive respondent (PH)	408	19.4	330	24.9	328	26.8	270	30.0	241	27.4
HIV-negative respondent (HIM)	1187	10.5	1109	9.4	955	12.4	866	12.7		
Serodiscordant UAIC										
HIV-positive respondent (PH)	408	6.1	330	7.6	328	8.2	270	5.9	241	7.9
HIV-negative respondent (HIM)	1187	2.5	1109	1.7	955	2.5	866	3.7		

[1] *N* = number of respondents, and % = number and proportion of men who reported having engaged in this behaviour.

[2] HIM stopped interviewing participants in June 2007, and 2007 data are not suitable for analysis.

[3] Serodiscordant partners are those known, as a result of testing, to be of different HIV serostatus from the respondent (e.g. HIV-negative partners of HIV-positive respondents and vice versa).

Measuring social capital among gay and other men who have sex with men: findings from the *e-male* pilot survey

Martin Holt and Patrick Rawstorne

The *e-male* study aims to find out whether using the internet increases social capital among men who have sex with men (MSM) by building social connections and a sense of belonging. Social capital comprises features of social organisation, such as civic participation, norms of reciprocity and trust in others, that facilitate cooperation for mutual benefit, including health and well-being (see Szreter & Woolcock, 2004). The *e-male* study builds on a long tradition in HIV social research of examining gay men's relationships to each other and their broader communities. Where *e-male* departs from previous research is in its attempt to understand the role of online networks in building (or constraining) gay men's attempts to support one another and effect protective health practices.

One challenge for the *e-male* study was to develop reliable measures of social capital appropriate for MSM who use the internet. Between late 2006 and early 2007, a pilot online survey was conducted with the primary aim of developing a range of measures that could assess the social capital of MSM. The survey contained items to measure men's social connections with friends and family, how often they participated in civic activities and engaged with community, and the levels of trust, reciprocity and safety within social networks and communities. The pilot study successfully recruited 503 participants over 11 weeks (predominantly gay-community-attached men from metropolitan areas), and developed a number of reliable scales to measure social capital.

One measure developed in the pilot survey was found to be a robust and reliable measure of the strength of relationships between MSM and a range of friends and family members. This scale, which we are referring to as the Strength of Social Connectedness scale, included the following items:

- I make a great effort to maintain my relationships with them.
- I trust them to look out for me and act in my best interests.
- I usually tell them exactly how I feel.
- I feel I could confide in them about almost anything.
- I believe we are willing to help each other out.
- My friendship with them is very important to me. (In the case of family members, this item is: 'My relationships with them are very important to me.')

Each item was scored on a five-point scale from 'strongly disagree' to 'strongly agree'. Higher mean scores indicated greater agreement with the items, and therefore greater degrees of trust, reliance and effort within those relationships. The mean scores on the scale given by participants for each group of friends and family are shown in Table 11.

Overall, participants said they made the biggest effort to maintain their relationships with their female friends and relied most upon these friendships, followed by offline gay and bisexual male friends and family members (see Table 11). Online gay and bisexual male friends were the least trusted and relied upon. These findings are interesting in that the role of women in the social networks of gay and other men who have sex with men is often overlooked in HIV social research. The rating of online friends as the least trusted group aligns with observations that online networks tend to be more dynamic, less enduring and less reliable than face-to-face networks (see DiMaggio et al., 2001). However, online relationships may still play an important role in supplementing MSM's social capital, as over 60% of participants in the pilot *e-male* survey said they had at least one online gay or bisexual male friend whom they had never met face to face, and over 60% said they had first met one of their offline gay or bisexual friends through the internet.

As well as the Strength of Social Connectedness scale, a range of other measures were developed to assess MSM's civic participation, sources of social support and perception of trust, reciprocity and safety within their communities. These measures have been used as key indicators of social capital in the main *e-male* survey, conducted in early 2008.

Table 11: Mean scores for Strength of Social Connectedness scale for each group of participants' friends and family—*e-male* study

Group of friends or family	No. of participants (*n*)	Mean score for Strength of Social Connectedness (from 1 to 5)	Cronbach's alpha (internal consistency reliability)
Offline gay and bisexual male friends	471	3.83	0.84
Online gay and bisexual male friends	281	2.90	0.86
Straight male friends	394	3.71	0.86
Female friends	427	3.98	0.91
Family members and relatives	436	3.83	0.87

1.4 Future developments

Establishing an internet-based cohort and behavioural surveillance research platform

John Imrie

With growing concern about rising HIV notifications and rapidly increasing rates of STIs among homosexually active men, it has become even more apparent that state and national policy planners and community organisations need a sustained flow of high-quality social, behavioural and epidemiological data to develop new prevention strategies. Two reviews in 2007 initiated by NSW Health and the Australian Federation of AIDS Organisations (AFAO) highlighted the important role that continued behavioural surveillance through our Gay Community Periodic Surveys has played in explaining recent HIV trends. But the reviews also noted limitations of the current data and pointed to the need for Australia-wide behavioural research infrastructure that could provide comparable data across all jurisdictions to examine the health of gay and other homosexually active men. The suggestion of a national internet-based platform combining both longitudinal and repeat cross-sectional studies is unique and would have the added benefit of potentially linking to national and state registers providing incidence data on HIV/STI and other health conditions (e.g. cancer, mental illness, etc.) and being used by health, pharmaceutical and social care services.

In June 2008, NCHSR researchers, along with colleagues from the National Centre in HIV Epidemiology and Clinical Research and the Australian Research Centre in Sex, Health and Society, received funding to undertake a one-year feasibility study of the issues involved in setting up such an internet-based national research platform. Unsurprisingly, the challenges of putting in place such a complex research platform of surveillance and detailed health research via the internet are not insignificant. Currently the team is busy looking at a vast array of complex issues, from the practical (sampling frames and 'over-sampling' in different groups according to age and HIV-serostatus groups and geographic jurisdictions) to the technical (devising unique identifiers and retention strategies to ensure that people are able to continue to be involved) to the economic (the costs of linking with other disease registers and databases) to the difficult but all-important issues of ethics and governance and ensuring that community voices are part of the research process. Despite the challenges, this is potentially a most exciting development for NCHSR. If considered feasible and successfully funded, an Australian internet-based cohort study of gay men would be the first national internet-based cohort study of gay men in the world.

Validating respondent-driven sampling methods to engage the most hard-to-reach men who have sex with men in Sydney

Iryna Zablotska

In Australia, 85% of new HIV infections are acquired as a result of sex between men. Gay men's risk behaviour in relation to the transmission of HIV and other STIs has been well studied, but how networks of gay men function and how they affect men's HIV risk are less well understood. Current research into HIV among men who have sex with men cannot assess the effect on HIV risk behaviours of the social and sexual environments of MSM. Additionally, data obtained in the convenience samples of gay men attending gay social/sex venues cannot be generalised to the broader population of MSM.

Respondent-driven sampling is a methodological development designed to address these issues, but it has so far never been used in HIV research in Australia. In 2008 NCHSR will pilot a survey using respondent-driven sampling among MSM in Sydney. The study will recruit 100 MSM using chain referral, i.e. where initial participants refer their peers and acquaintances to the survey. The number of peers each man can recruit to the study is limited to three or four, and each participant who refers others receives a referral coupon with unique serial numbers that are passed on to those they recruit. If successful, we hope to extend this work to compare gay men's social and sexual networks in different geographical areas.

2 Testing for HIV and other STIs

2.1 Trends in testing for HIV and other sexually transmissible infections in the Gay Community Periodic Surveys

Iryna Zablotska and Andrew Frankland

HIV testing

From 2003 to 2007, HIV testing among men who had previously never tested HIV-positive was more common than testing for other STIs, and it remained stable over this period. Table 12 shows that, in most samples of gay-community-attached homosexually active men, over 80% have ever been tested for HIV (see also Figure 3). Recently, testing rates have been lower in Perth and Canberra, perhaps reflecting lower levels of gay-community attachment or fewer local community campaigns promoting HIV testing. In 2007 two questions were combined to measure the proportion of men who had ever been tested for HIV. As a result, the percentages reported in 2007 were greater than in previous years but no significant trends were observed, except in Queensland where the increase in the proportion of men who had ever been tested for HIV since 2003 was statistically significant ($p < .01$).

Table 12: Proportions (%) of men who reported ever having been tested for HIV—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007[1]	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	2541	88.7	2821	88.7	3413	82.1	3732	85.5	2342	92.4
Melbourne	2064	86.7	1962	86.7	1804	86.1	1988	85.2	2043	87.5
Queensland	1511	83.3	1667	82.1	1382	80.6	1276	80.6	1417	90.4 [2]
Perth			1014	76.7			927	80.0		
Adelaide	834	87.2			629	81.7			527	88.8
Canberra	255	85.1					282	85.8		

[1] In 2007 two separate items ('Have you ever been tested for HIV antibodies?' and 'When were you last tested for HIV antibodies?') were combined to calculate a more accurate measure of HIV testing. This new method captures a larger proportion of men who had ever been tested, resulting in an increase in 2007 compared to previous years.

[2] This increase is statistically significant only in the Queensland survey.

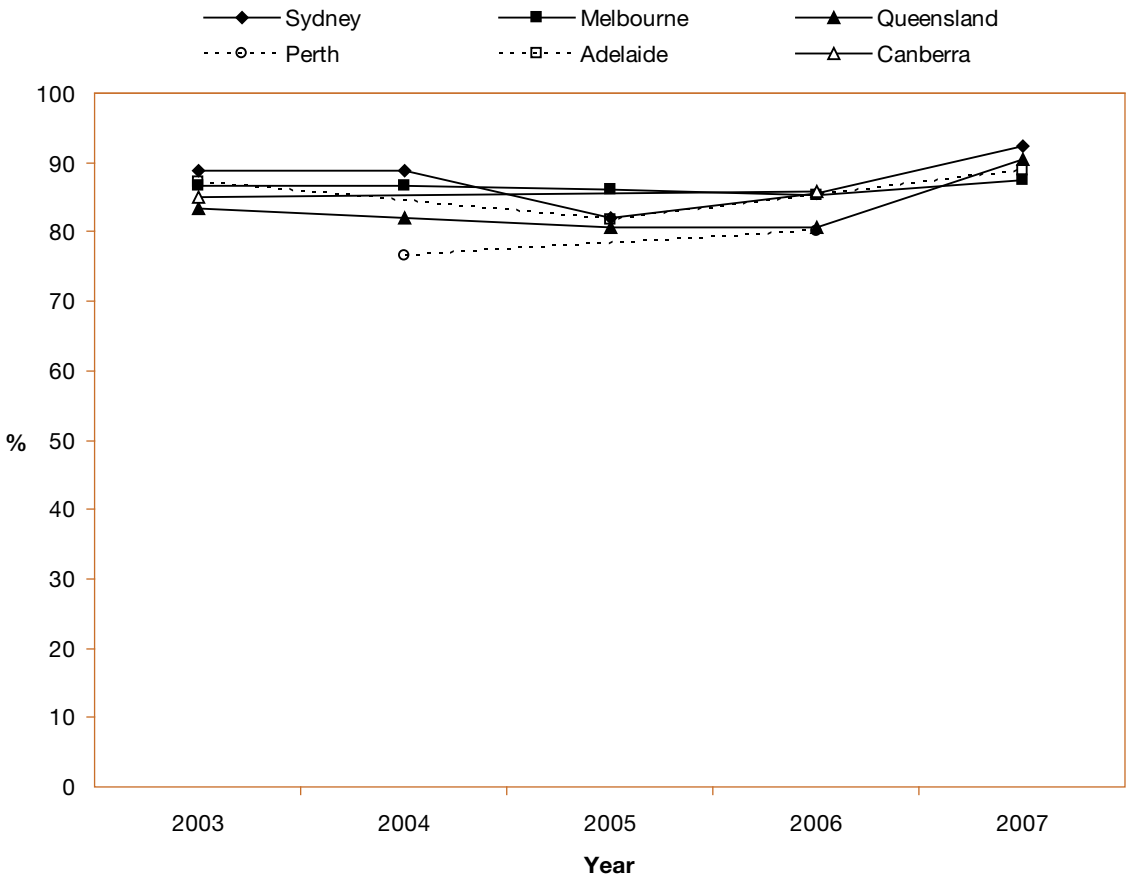


Figure 3: Proportions (%) of men who had ever been tested for HIV

Table 13 shows the proportion of respondents who had been tested for HIV in the six months prior to each survey. Overall, between 40% and 55% of respondents had been tested during this period and these proportions have remained stable across all the periodic surveys over the past five years, apart from in Queensland where there was a significant increase ($p < .001$).

Table 14 shows levels of HIV testing among young men (under 25 years of age) in our samples. Overall, between 70% and 80% of men in this group had ever been tested for HIV, but the proportion of young men ever tested in the Sydney periodic survey was considerably higher (80%). Since 2003, rates of HIV testing among men under 25 have remained stable with the exception of a significant increase in Queensland ($p < .001$).

Testing for STIs other than HIV

Among men who had been tested for STIs other than HIV, blood and urine-sample tests were the most common tests undertaken (see Table 15). Swab tests of any type (anal, throat or penile) were reported by substantially fewer men, but there was a noticeable increase in the reporting of any swab and urine tests in most states (up 7% in Sydney, 7.3% in Melbourne and 8.5% in Queensland). However, the overall proportions of men reporting any testing, including blood testing, for STIs other than HIV have increased only modestly.

Given that over the past five years there have been significant increases in the proportions of men who have undergone individual tests, but that the rates of 'any' testing have remained stable, it seems that gay men are undertaking more comprehensive STI screening rather than there being increased proportions of men undergoing STI testing (Zablotska et al., in press). Data collected from 2005 onwards on the frequency of testing suggest no significant changes (data not shown).

In Sydney the apparent increased comprehensiveness of STI testing among gay men is happening at a time when there have also been rises in the incidence and prevalence of STIs (National Centre in HIV Epidemiology and Clinical Research, 2007). These increases in testing are most likely explained by improved screening, comprehensive testing in line with STI-testing guidelines (Bourne et al., 2008) and the impact of education campaigns.

In Sydney and Queensland, STI testing significantly increased among men who had multiple sex partners (see Table 16).

Of some concern is the steady third of men who did not report having been tested for STIs other than HIV in the previous year. Of equal concern are the apparent missed opportunities to screen, for other STIs, men who were having HIV tests, and to screen, for HIV, men who were having STI tests. In our sample, among men tested for HIV in the previous 12 months, 80% to 90% also reported having undergone STI testing (data not shown). Among non-HIV-positive men who reported any STI testing in the previous year, similar proportions (80% to 90%) reported also having had an HIV test (data not shown). Although the data do not allow us to determine whether the HIV and STI testing occurred simultaneously, the discrepancy in reported rates of HIV and STI testing over the same period suggest that important opportunities to increase the uptake of STI and HIV screening are being missed. Given the common risk factors for sexual transmission of both HIV and other STIs, these data indicate that there is still scope for community health promotion efforts to promote comprehensive STI/HIV testing to both gay men and health practitioners.

Table 13: Proportions (%) of men who had been tested for HIV in the six months prior to the survey, among men who reported ever having had an HIV test—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	1911	50.1	2116	54.2	2583	53.3	2861	54.0	1792	53.3
Melbourne	1565	42.1	1513	46.9	1369	43.2	1514	44.1	1530	46.5
Queensland	1172	48.9	1271	48.8	1053	52.3	999	53.6	1092	53.7
Perth			780	41.2			698	39.5		
Adelaide	683	49.6			484	48.8			415	50.4
Canberra	202	39.6					238	40.3		

Table 14: Proportions (%) of men under the age of 25 who reported ever having been tested for HIV—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	254	73.2	295	74.2	287	67.2	437	73.0	245	80.8
Melbourne	296	72.6	342	75.4	293	64.8	364	69.8	362	71.8
Queensland	396	68.2	434	67.1	374	69.8	383	67.9	400	83.0
Perth			218	60.1			206	61.2		
Adelaide	157	73.9			149	66.4			125	82.4
Canberra[1]	22	17/22					26	18/26		

[1] Percentages are not reported, as the number of men in these samples is small, which makes the calculation of proportions unreliable.

Table 15: Proportions (%) of men who had been tested for sexually transmissible infections other than HIV in the 12 months prior to the survey—Gay Community Periodic Surveys, 2003–2007

Source	2003 %	2004 %	2005 %	2006 %	2007 %
Sydney	***N*[1] = 2541**	***N* = 2821**	***N* = 3413**	***N* = 3732**	***N* = 2342**
Anal swab	25.7	31.9	35.3	41.4	42.0
Throat swab	34.3	38.7	40.6	46.5	44.9
Penile swab	26.3	30.7	31.0	35.1	34.5
Urine sample	42.0	46.2	46.8	53.1	51.8
Blood test other than for HIV	56.3	54.3	54.7	57.4	55.2
Any swab or urine test	48.6	52.1	52.7	57.5	55.6
Any test	66.0	66.4	65.6	68.8	66.9
Melbourne	***N* = 2064**	***N* = 1962**	***N* = 1804**	***N* = 1988**	***N* = 2043**
Anal swab	23.5	25.1	30.5	34.3	35.2
Throat swab	27.8	31.1	36.3	38.6	39.3
Penile swab	23.0	26.2	30.3	31.0	31.2
Urine sample	35.2	40.3	44.3	44.3	45.6
Blood test other than for HIV	51.1	53.0	50.6	51.5	49.1
Any swab or urine test	42.9	46.4	49.2	49.8	50.2
Any test	62.3	63.4	62.0	61.8	61.1
Queensland	***N* = 1511**	***N* = 1667**	***N* = 1382**	***N* = 1276**	***N* = 1417**
Anal swab	16.1	18.8	23.1	26.9	29.4
Throat swab	23.4	27.4	32.1	34.2	37.5
Penile swab	20.3	23.0	25.8	27.0	27.7
Urine sample	36.6	42.7	46.8	44.0	46.4
Blood test other than for HIV	53.4	56.0	55.4	51.8	55.1
Any swab or urine test	42.5	47.4	50.5	48.0	51.0
Any test	61.2	65.3	65.1	60.8	64.4
Perth[2]		***N* = 1014**		***N* = 2821**	
Anal swab		16.3		19.8	
Throat swab		21.7		23.3	
Penile swab				18.1	
Urine sample		38.2		38.0	
Blood test other than for HIV		52.0		47.9	
Any swab or urine test		40.5		41.1	
Any test		57.8		56.4	
Adelaide	***N* = 834**		***N* = 629**		***N* = 527**
Anal swab	33.9		32.4		38.5
Throat swab	38.8		36.1		42.3
Penile swab	29.4		30.5		33.4
Urine sample	48.3		44.7		50.3
Blood test other than for HIV	56.1		51.3		54.8
Any swab or urine test	53.6		48.5		53.3
Any test	68.8		61.8		65.1
Canberra	***N* = 255**			***N* = 282**	
Anal swab	22.0			32.3	
Throat swab	27.1			34.4	
Penile swab	19.2			24.8	
Urine sample	39.6			42.9	
Blood test other than for HIV	49.4			53.4	
Any swab or urine test	43.5			44.3	
Any test	62.0			57.1	

[1] Because many survey respondents checked these boxed items only when the answer was 'yes', in this table the '*N*' given in every instance is the total number surveyed, not the number who answered the specific question.

[2] Perth 2004 data was recoded to make it more consistent with data from previous years. Thus percentages may differ from those published previously.

Table 16: Prevalence of 'any' testing for STIs other than HIV among men who were not HIV-positive, by number of partners—Gay Community Periodic Surveys, 2003–2007

Number of male sexual partners	2003		2004		2005		2006		2007	
	N[1]	%	*N*[1]	%	*N*[1]	%	*N*[1]	%	*N*[1]	%
Sydney										
One	203	51.8	241	53.7	275	51.1	318	55.7	220	51.4
2 to 10	547	62.8	644	66.8	822	66.8	983	69.8	587	69.7
More than 10	476	74.1	517	75.0	588	73.8	633	80.4	358	80.8
Melbourne										
One	168	49.3	157	48.0	128	45.1	205	52.0	186	46.9
2 to 10	456	61.5	466	64.8	403	62.8	432	60.5	497	63.5
More than 10	386	71.3	372	72.7	353	73.2	349	74.4	319	75.8
Queensland										
One	118	54.4	125	52.3	112	57.7	111	50.4	125	53.0
2 to 10	273	61.5	296	58.8	252	63.3	203	62.5	266	67.7
More than 10	339	64.9	445	76.2	361	70.4	297	66.1	265	73.3
Adelaide										
One	101	64.3			67	49.6			69	53.9
2 to 10	252	72.4			176	65.2			138	71.9
More than 10	124	72.9			61	70.9			65	73.0
Perth										
One			100	49.5			102	50.5		
2 to 10			241	58.6			202	57.4		
More than 10			129	73.3			108	65.8		
Canberra										
One[1]	27	15/27					34	45.3		
2 to 10	68	63.5					60	65.9		
More than 10	42	73.7					38	73.1		

[1] Percentages are not reported, as the number of men in this sample is small, which makes the calculation of proportions unreliable.

Table 17: Gonorrhoea and chlamydia testing and prevalence—Positive Health cohort of HIV-positive men

Number tested	2003 *N* = 322 *n* (%)	2005[1] *N* = 284 *n* (%)	2006 *N* = 266 *n* (%)	2007 *N* = 239 *n* (%)
Gonorrhoea (number who tested positive)				
Penile	21 (6.5)	16 (5.6)	7 (2.6)	11 (4.6)
Oral	6 (1.9)	5 (1.8)	7 (2.6)	8 (3.4)
Anal	10 (3.1)	10 (3.5)	16 (6.0)	12 (5.0)
Chlamydia (number who tested positive)				
Anal	11 (3.4)	8 (2.8)	9 (3.4)	8 (3.4)
Non-specific urethritis/Urethral chlamydia	26 (8.1)	17 (6.0)	15 (5.6)	22 (9.2)

[1] No data were collected in 2004.

2.2 STI testing in the Positive Health cohort

Iryna Zablotska

Participants in the Positive Health cohort of HIV-positive men have undergone testing for gonorrhoea and chlamydia for several years (see Table 17). Of the 239 men tested in 2007, 5% tested positive for anal gonorrhoea, 4.6% tested positive for penile gonorrhoea and 3.4% for oral gonorrhoea. In 2007, 9.2% tested positive for non-specific urethritis or urethral chlamydia. Since 2003 there have been no significant trends in the proportions of men who tested positive for either gonorrhoea or chlamydia in the Positive Health cohort.

2.3 Knowledge of the availability of non-occupational post-exposure prophylaxis following potential sexual exposure to HIV, among homosexually active men

Iryna Zablotska and Andrew Frankland

Awareness of non-occupational post-exposure prophylaxis (NPEP) and its availability has increased at all survey sites over the past five years (see Table 18). Gay-community-attached men in Sydney have traditionally reported the highest levels of awareness of NPEP. In 2007, questions about awareness of NPEP were included in only the Melbourne and Queensland periodic surveys and there were significant increases in awareness of NPEP in both surveys ($p < .01$).

Table 18: Proportions (%) of men who reported awareness of non-occupational post-exposure prophylaxis (NPEP)—Gay Community Periodic Surveys, 2003–2007

Knew that NPEP was readily available	2003		2004		2006[1]		2007[2]	
	N	%	*N*	%	*N*	%	*N*	%
Sydney	651	65.7	2699	65.6				
Melbourne	1916	44.8	1803	52.7	1816	57.3	1876	57.6
Queensland	1439	37.0	1611	45.6			1339	53.1
Perth			911	26.0	863	48.2		
Canberra	239	57.3						

[1] Questions about NPEP were not asked in the periodic surveys in 2005. In 2006, questions about NPEP were asked only in the Melbourne and Perth surveys.

[2] In 2007, questions about NPEP were asked only in the Melbourne and Queensland surveys.

2.4 Perceptions of HIV and the use of HIV services among people from priority culturally and linguistically diverse communities in New South Wales

Augustine Asante and Henrike Körner

In 2006/07 NCHSR began a periodic survey among certain culturally and linguistically diverse (CALD) communities that are a priority to health services because of a higher incidence of HIV than among the general population. The survey aims to provide benchmark data on community members' knowledge and perceptions of HIV, their use of health services and their sexual practices during visits to their countries of birth. Recent epidemiological and clinical data indicate that people born overseas accounted for about 31% of new HIV diagnoses in Australia from 2002 to 2006 (National Centre in HIV Epidemiology and Clinical Research, 2007). Of these, those born in Asia and Sub-Saharan Africa made up about 28% and 18% respectively. The importance of CALD communities in the evolving Australian HIV epidemic has been underlined in several recent research studies. The data collected from this periodic survey will enable policy makers and HIV education agencies to develop culturally appropriate resources, contribute to improved awareness and assist community organisations to address HIV-related stigma and discrimination more effectively.

Four priority CALD communities (Thai, Cambodian, Sudanese and Ethiopian) were purposefully selected to take part in this survey, based on a range of factors including the prevalence of HIV in both their home countries and Australian communities, their migration history and the size of their population in Australia. Nearly 300 participants were recruited from within these communities in New South Wales. Recruitment was carried out through the Multicultural HIV/AIDS and Hepatitis C Service, Sydney, with the support of relevant ethnic community organisations. All participants completed a short, self-administered questionnaire that covered five key areas: basic sociodemographic information, access to and use of health services, knowledge and awareness of HIV/AIDS, perceptions of stigma and discrimination, and travel patterns between Australia and the country of birth, including sexual practices during such travels.

Findings from the first round of the survey suggest that, while HIV awareness and knowledge are very high among the communities, personal strategies to prevent HIV infection may be limited. There was evidence of limited use of condoms with sexual partners and a relatively small proportion of participants said that they had ever been tested for HIV. Knowledge of how HIV was transmitted and how to protect oneself from infection was excellent. Between 85% and 95% correctly identified the key modes of HIV transmission (sexual intercourse, sharing of needles, blood transfusion and mother-to-child transmission) and appropriate methods of protection against HIV infection (consistent condom use, abstinence and avoiding sharing needles). Despite this knowledge, only about 20% of participants with sexual partners always used condoms (see Figure 4). Overall, 71% of women and 56% of men indicated that they never used condoms with sexual partners, or considered the question not applicable. However, it is important to note that the question about condom use with a sexual partner was not asked in any specific context nor were people's interpretations of the term 'sexual partner' explored.

Levels of HIV testing among participants was relatively low. About 86% believed that it was important to test for HIV and know one's serostatus; only 50% indicated that they had ever been tested for HIV (see Figure 5). There were variations between communities; more Ethiopians than Sudanese reported that they had ever been tested for HIV.

In the case of many migrants, access to health services is not automatic and depends on a range of factors, including knowledge of the health landscape, migration status and, most importantly, whether or not they have a Medicare card (Körner, 2007). The reported rate of use of health services was higher than anticipated, with around 57% using health services two or more times in a year. This appears to have been made possible by the widespread access to Medicare cards among participants. Despite relatively good use of services, about 41% of participants either rarely used health care (i.e. once a year) or never used it (see Figure 6).

There were conflicting results as far as HIV-related stigma and discrimination were concerned. On the one hand, participants had positive views of people affected by HIV/AIDS, observing overwhelmingly that those people

deserved support, not condemnation. On the other hand, about 43% of participants thought that people living with HIV/AIDS brought shame on themselves and their families. A small proportion of participants (8.4%) were of the view that people living with HIV/AIDS should be isolated and not allowed to participate in community activities. Further investigation is required to understand more clearly the degree of HIV-related stigma and discrimination in these communities so as to develop appropriate interventions.

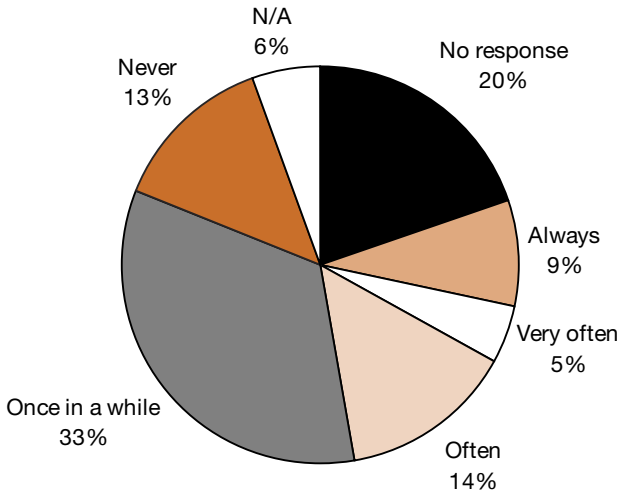


Figure 4: Condom use among participants with sexual partners—Priority CALD Periodic Survey

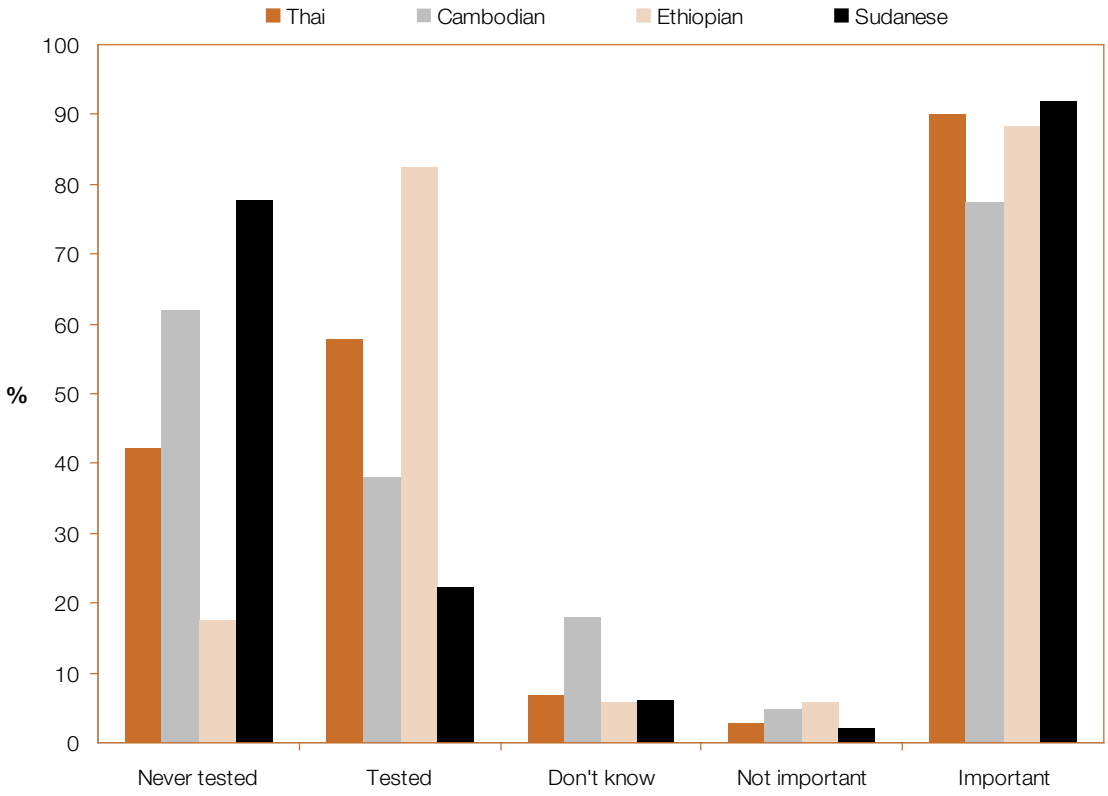


Figure 5: Perceptions about HIV testing, and actual testing for HIV—Priority CALD Periodic Survey

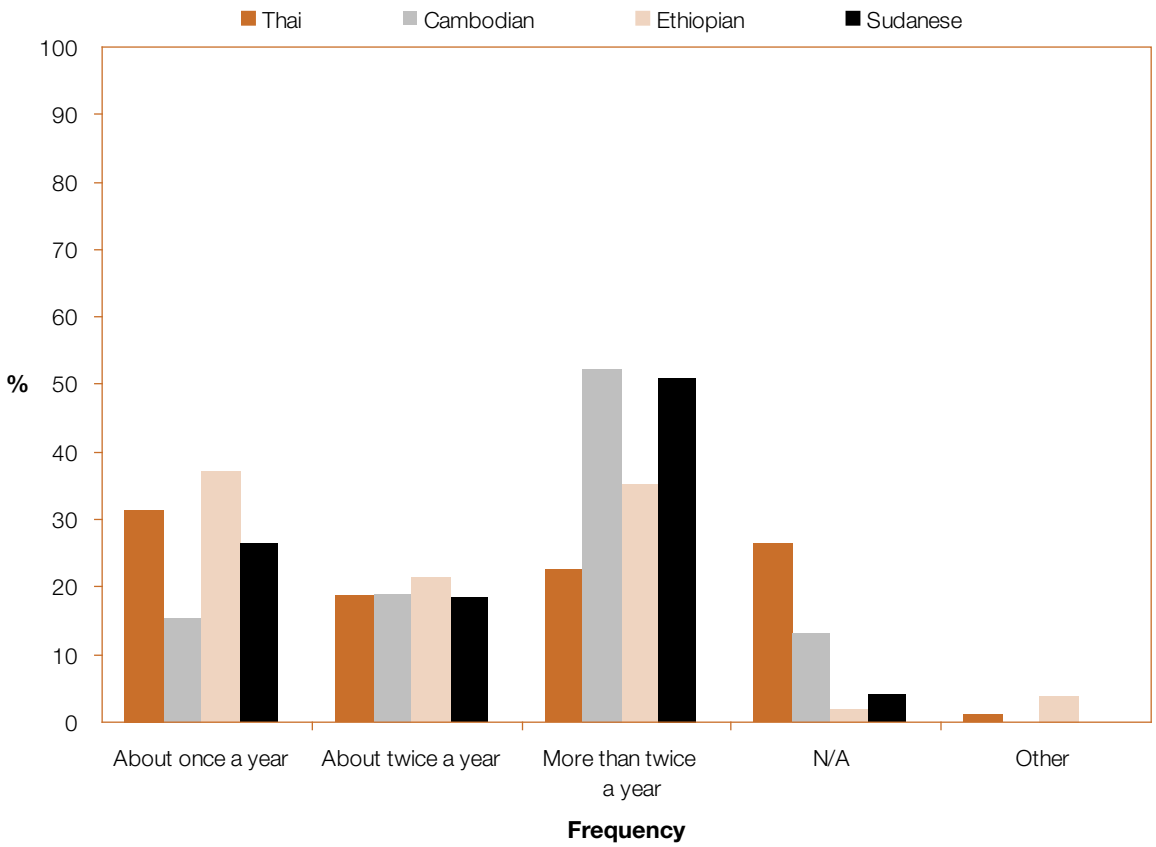


Figure 6: Frequency of use of health services—Priority CALD Periodic Survey

2.5 Knowledge of sexually transmissible infections and blood-borne viruses among young Aboriginal people in New South Wales

Peter Hull

NSW Health provided funding to the Aboriginal Health and Medical Research Council (AH&MRC) and NCHSR to carry out a behavioural surveillance survey of knowledge, risk practice and access to services related to sexually transmissible infections and blood-borne viruses among young Aboriginal people in New South Wales. This survey also trialled the use of handheld computers as an alternative to printed questionnaires as a means of data collection. This innovative method has proved successful in the two rounds of data collection to date; most of the participants preferred to use the handheld device and none had difficulties completing the questionnaire in this way.

Participants were recruited at the Knockout Football Carnival in Lismore, New South Wales, in October 2007 and at the Yabun cultural festival in Sydney in January 2008. A total of 293 surveys were collected from Aboriginal and Torres Strait Islander people aged from 16 to 30 years (median age = 20 years). Two-thirds of the participants lived in metropolitan areas and over half (57.7%) were female (see Tables 19 and 20). Most of the participants identified as heterosexual (89.8%).

Survey questions assessed participants' knowledge of STIs, hepatitis C and HIV. Almost three-quarters (71.3%) knew it was possible to have an STI without obvious symptoms, almost 10% thought there would be symptoms and 20% reported that they did not know. Almost a quarter of participants (21.8%) thought that always using condoms provided protection from all STIs. Most participants (90.1%) knew that hepatitis C could be transmitted by injecting with a needle that someone else had already used and a slightly smaller proportion (84.0%) knew it could be transmitted via unsterile tattooing or body-piercing procedures. Only 16.4% of participants knew that there was a cure for hepatitis C and over half (54.3%) believed there was no cure. While most of the participants (90.4%) knew that you could get HIV from injecting with a needle someone else had already used, a quarter (25.6%) wrongly believed you could get HIV from sharing a 'bong' and one in five (19.5%) thought you could get it from kissing.

As among most populations of young people, licit and illicit drug use was quite common. Cannabis (used by 39.9%) was by far the most commonly used drug reported by participants, followed by ecstasy (used by 12.8%), amphetamines (used by 9.7%) and cocaine (used by 6.3%). Very few participants reported having injected drugs.

Just over a third of participants (35.1%) reported having been tested for STIs other than HIV in the 12 months prior to the survey, while a similar proportion had never been tested. Most of those who had been tested (85.6%) had been tested either at a private general practice or at an Aboriginal medical service. Just over a third of participants (36.8%) had been tested for hepatitis C; the majority of these (85.8%) had also been tested at a private general practice or an Aboriginal medical service.

Table 19: Proportion (%) of respondents living in various types of locations, by recruitment event—Survey of Knowledge, Risk Practices and Access to Services among Young Aboriginal People in New South Wales

	Knockout		Yabun		Total	
	n	%	*n*	%	*n*	%
Metropolitan	58	45.3	135	81.8	193	65.9
Inner regional	47	36.7	17	10.3	64	21.8
Outer regional	23	18.0	11	6.7	34	11.6
Remote and very remote		2	1.2	2	0.6	
Total	128	100	165	100	293	100

Table 20: Gender composition of the sample, by recruitment event—Survey of Knowledge, Risk Practices and Access to Services among Young Aboriginal People in New South Wales

	Knockout		Yabun		Total	
	n	%	*n*	%	*n*	%
Female	62	48.4	107	64.8	169	57.7
Male	66	51.6	58	35.2	124	42.3
Total	128	100	165	100	293	100

3 Living with HIV

At present only one biennial study that includes participants from all HIV-transmission categories, the Positive Health study, provides information on sexual practice, treatment uptake and the service needs of people living with HIV/AIDS. Regional and some state-level data are available from other studies. Face-to-face interviews for the Positive Health study first started in 1999 and continued more or less annually until June 2007 (Fogarty et al., 2003). Additional data reported in this section are drawn from the Gay Community Periodic Surveys and the clinic-based Australian HIV Observational Database (AHOD), which is managed by the National Centre in HIV Epidemiology and Clinical Research. We look forward to a number of new developments in the coming years, including additional data from the Straightpoz study, a possible internet-based cohort study (see '1.4 Future developments', page 15) and new ventures examining the experiences of people living in serodiscordant relationships, and contemporary understandings and perceptions of HIV and STI risk among gay men including men living with HIV.

3.1 Trends in need for care and support among homosexually active men living with HIV

Iryna Zablotska

The Positive Health (PH) study has served to highlight several important issues regarding needs and barriers to accessing health and social support services among HIV-positive homosexually active men.

Firstly, the demand for medical services has remained high, particularly the demand for doctors with experience in HIV management, antiretroviral prescribers, dentists and hospital pharmacies (see Table 21). All study participants expressed a need for at least one type of health service, and usually a combination of several. Secondly, the degree to which these needs for health services have been satisfied is reasonably high, and the distance to services, their confidentiality and referral mechanisms are not the issues of major concern. The issues

of most concern related to the availability of appointments, inadequate opening hours and the cost of some services, particularly dental care.

While all the men reported that they needed health services, fewer than half mentioned a need for any social support services, even though the population of HIV-positive people has increased over the years. The community-based social support services that men needed most were income support, access to peer groups and financial planning. Among the small number of men who did need social support services, a considerable proportion was not satisfied with them, mostly due to poor quality of service and staff attitudes.

The PH study has confirmed once again that as HIV infection becomes a chronic condition, new issues and challenges arise for the health care system, such as increasing demand for hospital outpatient and primary care services (particularly where HIV-positive people live), ageing population health issues, complications of long-term treatment, co-infections (particularly with STIs) and co-morbidities (heart and liver disease, cancers and mental health problems).

3.2 Uptake of antiretroviral treatment, and viral load

Iryna Zablotska and Andrew Frankland

Antiretroviral treatments (ART) have been widely taken up by HIV-positive people in Australia. Across all states, approximately two-thirds of all HIV-positive men reported being on ART in 2007 (see Table 22 and Figure 7). No significant trends have emerged since 2003, with the exception of an increase in the proportion of HIV-positive men on ART in Adelaide. However, these data are based on very small numbers of men and should be treated cautiously.

Table 23 presents data from several sources on the proportion of people living with HIV/AIDS who have an undetectable viral load. A larger proportion of those using antiretroviral therapy (approximately 75% to 90%, depending on the sample) had an undetectable viral load than those who were not on treatment (mostly around 10% to 25%). Among Gay Community Periodic Survey participants in Sydney and Melbourne there has been a significant increase in the proportion of men using antiretroviral therapy who had an undetectable viral load ($p < .01$).

Table 21: Proportion (%) of participants in the Positive Health cohort who reported needing particular care and support services and experienced barriers to accessing these services

Needs	2006 *N* = 270 Those with needs (%)	2006 Those with barriers to access (%)	2007 *N* = 241 Those with needs (%)	2007 Those with barriers to access (%)
Health needs				
Doctor with experience in HIV management	91.1	10.7	95.0	2.5
Dentist	79.6	19.6	73.9	9.1
Doctor who is an antiretroviral prescriber	75.2	5.6	80.5	2.5
Hospital pharmacy	70.7	21.9	74.3	6.2
Counsellor or psychologist	34.4	10.7	30.3	2.5
Hospital outpatient services	32.2	5.2	32.8	0.8
Community needs				
Home and community care services	4.4	1.1	7.5	0.8
Home care nursing	1.5	0.3		
Drug or alcohol services	4.4	1.9	6.2	0.8
Peer support	19.6	5.6	12.9	1.7
Income support	22.6	5.2	12.9	2.1
Financial planning services	14.8	1.9	7.1	0.0

Table 22: Proportions (%) of people living with HIV/AIDS who are on combination antiretroviral therapy (ART)[1]—Gay Community Periodic Surveys, 2003–2007

Source	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	330	66.7	416	66.1	483	64.2	516	65.7	286	66.8
Melbourne	177	55.9	159	60.4	162	58.6	153	58.8	150	64.0
Queensland	94	55.3	122	63.9	81	55.6	68	64.7	88	64.8
Perth			49	71.4			41	78.0		
Adelaide	42	59.5			36	69.4			43	81.4
Canberra[2]	13	12/13					16	16/16		

[1] Percentages to be treated with caution as they are based on small numbers of participants.

[2] Percentages are not reported, as the number of men in these samples is small, which makes the calculation of proportions unreliable.

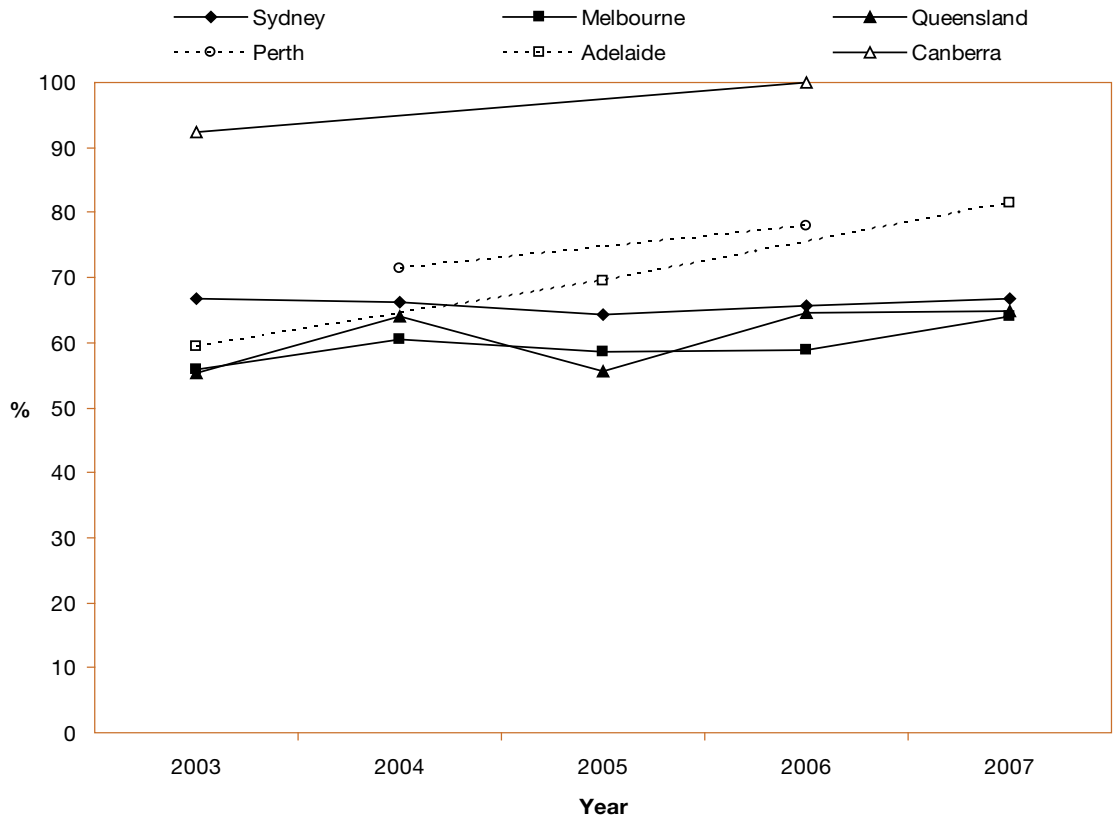


Figure 7: Proportions (%) of people living with HIV/AIDS who are on combination antiretroviral therapy (ART)

Table 23: Proportions (%) of people living with HIV/AIDS who reported having an undetectable viral load[1]—Gay Community Periodic Surveys, 2003–2007

Source	2003		2004		2005		2006		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney										
Using ART[2]	217	75.1	267	77.5	306	81.7	330	85.2	187	85.0
Not using ART	108	24.1	141	24.8	167	21.6	172	18.0	89	22.5
Melbourne										
Using ART	98	74.5	94	72.3	95	83.2	89	80.9	96	84.4
Not using ART	77	16.9	61	16.4	63	11.1	63	34.9	54	13.0
Queensland										
Using ART	51	74.5	78	80.8	45	84.4	44	75.0	57	77.2
Not using ART[3]	41	8/41	44	12/44	34	13/34	24	6/24	31	3/31
Perth										
Using ART			35	82.9			31	93.5		
Not using ART[3]			12	4/12			9	2/9		
Adelaide[2]										
Using ART									35	94.3
Not using ART[3]									8	1/8

[1] Percentages to be treated with caution as they are based on small numbers of participants.

[2] ART = antiretroviral therapy

[3] Percentages are not reported, as the number of men in these samples is small, which makes the calculation of proportions unreliable.

3.3 Future developments

Experiences of people living heterosexually with HIV: the Straightpoz study

Asha Persson

The Straightpoz study is a qualitative longitudinal study of 47 HIV-positive heterosexuals and their HIV-negative partners in New South Wales. The study is conducted in collaboration with the Heterosexual HIV/AIDS Service NSW (Pozhet) and explores experiences of living with HIV that are specific to this group. The first phase of the study, which focused on diagnosis, stigma, disclosure, relationships, sexuality, social connectedness and contact with services and the positive community, was completed in 2006. The second phase, focusing on health, treatments, interactions with health workers/services and sexual practice, commenced in September 2006. The third phase of the study is planned to begin in early 2009.

Preliminary analysis shows that the vast majority of HIV-positive participants were on antiretroviral treatment. It also suggests that most participants had a strong faith in medicine, were resigned to staying on treatments for the rest of their lives, were not interested in treatment breaks, were very happy and satisfied with their HIV doctor/specialist and were in a traditional doctor–patient relationship in which they saw their HIV doctor/specialist as the expert whose advice they trusted and followed. They were much less satisfied with health professionals working outside the field of HIV and many had problems finding a suitable GP. In addition, preliminary analysis also suggests that almost all participants defined safe sex as condom use. However, half the HIV-serodiscordant couples in the study did not use condoms and instead relied on alternative strategies to reduce the risk of transmission, primarily the HIV-positive partner's undetectable viral load and the perceived low incidence of heterosexual transmission of HIV. Slightly over half of sexually active HIV-negative partners tested for HIV on a regular basis, while most HIV-negative partners had little or no contact with HIV services and organisations.

A detailed analysis of these and other findings will be presented in the study's second comprehensive monograph to be released in late 2008.

4 Drug use and drug treatment

4.1 Recreational drug use among homosexually active men

Iryna Zablotska and Andrew Frankland

The use of illicit drugs among homosexually active men in Australia is higher than among the general population (Australian Institute of Health and Welfare, 2005), particularly among gay-community-attached men. Table 24 shows the proportion of men who reported having used at least one non-prescription illicit drug in the six months prior to each of the Gay Community Periodic Surveys.

There is strong regional variation in illicit drug use. For example, the Sydney Gay Community Periodic Survey shows that there has been more extensive drug use in Sydney than in other Australian cities, although this difference is decreasing over time. In recent years, rates of any illicit drug use have decreased significantly in the Sydney periodic survey ($p < .001$), while significant increases have been observed in Queensland ($p < .05$).

4.2 Injecting drug use among homosexually active men

Iryna Zablotska and Andrew Frankland

Most surveys of homosexually active men also ask respondents about injecting drug use. Rates of injecting drug use are generally very low; however, gay-community-attached men report higher levels of injecting than other groups in the population. In most states, in the Gay Community Periodic Surveys, between 4% and 6% of homosexually active men reported any injecting drug use in the six months prior to data collection (see Table 25). Due to changes to the question format in 2006, these data are not directly comparable to previous years.

Table 24: Proportions (%) of homosexually active men who reported having used illicit drugs in the six months prior to the survey—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006		2007	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Any drug use										
Sydney	2541	72.8	2821	70.8	3413	69.9	3732	69.1	2342	67.7
Melbourne	2064	62.7	1962	60.6	1804	63.2	1988	60.0	2043	59.8
Queensland	1510	56.5	1667	60.6	1382	57.2	1276	61.4	1417	60.4
Perth			1014	56.2			927	56.7		
Adelaide	834	56.4			629	62.6			527	52.4
Canberra	255	49.4					131	46.5		
Used more than one drug										
Sydney	2541	56.3	2821	55.1	3413	54.3	3732	54.8	2342	50.1
Melbourne	2064	44.3	1962	42.7	1804	46.1	1988	44.4	2043	41.0
Queensland	1510	38.9	1667	41.9	1382	38.1	1276	42.0	1417	42.6
Perth			1014	37.4			927	36.8		
Adelaide	834	37.1			629	46.1			527	29.8
Canberra	255	32.2					282	24.8		

Table 25: Proportions (%) of homosexually active men who reported having injected at least one drug in the six months prior to the survey—Gay Community Periodic Surveys, 2003–2007

	2003		2004		2005		2006[1]		2007	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
Sydney	2541	6.5	2821	6.8	3413	5.2	3732	5.2	2342	6.0
Melbourne	2064	4.7	1962	5.0	1804	4.7	1988	4.4	2043	4.7
Queensland	1510	6.6	1667	5.7	1382	5.1	1276	7.1	1417	5.6
Perth			1014	4.2			888	5.2		
Adelaide[2]	834	4.6			629	4.6			527	2.6
Canberra	255	1.6					282	1.8		

[1] In 2006, questions relating to drug use were changed in all periodic surveys, therefore data presented for 2006 and 2007 are not directly comparable to those of previous years.

[2] Questions changed over time so figures are not directly comparable.

Attitudes of heroin-injecting drug users towards heroin, as predictors of treatment success

Loren Brener and Ilyse Resnick

In Australia injecting drug users are estimated to make up around 2% of the population (Australian Institute of Health and Welfare, 2005). With an estimated 313 500 people at a higher risk of various health, social and legal problems related to injecting drug use, it is imperative to establish effective drug treatment programs.

Knowing which variables contribute to the success of treatment can be used to further improve the design of both treatment and treatment facilities. There have been many studies that address variables that predict the success of drug treatment. Known predictors of success are factors such as motivation to be in treatment (Gossop et al., 2003), legal coercion (Rempel & Destefano, 2000), family involvement in treatment, degree of social support, and employment at discharge (Siddall & Conway, 1988).

Aside from addressing these previously established predictors, this study also assesses the implicit and explicit attitudes of heroin users towards their drug of choice. Implicit attitudes have been found to subtly influence behaviour (Greenwald et al., 1998) but no research has linked implicit attitudes to behavioural outcomes. The study attempts to address this link between implicit attitudes and behavioural outcomes, and will assess whether the unconscious feelings and attitudes that people have towards heroin influence treatment outcomes.

4.3 Illicit drug use among young people attending music festivals in New South Wales

Peter Hull, Yvonna Lavis, Joanne Bryant and Carla Treloar

There is strong evidence to suggest that illicit drug use is normalised among some groups of young people in Australia (Holt, 2005). The age group that is of most interest in this regard is 18- to 25-year-olds. However, there are few data that directly investigate drug use in this group. The Australian Secondary School Student Survey (White & Hayman, 2004) and the National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2005) are two major projects that have been conducted to provide detailed information about general patterns of drug use among the Australian population. However, the former is specifically targeted at a younger age group, while the sampling methods of the latter leave 18- to 25-year-olds largely underrepresented, which means that the drug-use behaviour of this group has received only limited attention.

The Periodic Survey of Drug Use among Young People is an annual, cross-sectional study to monitor the frequency of drug use and types and quantity of drugs used by young people attending music festivals in New South Wales. The project was piloted at the Big Day Out in Sydney in 2004 and additional data were collected at Splendour in the Grass in Byron Bay in 2004 and 2005 and the Big Day Out in Sydney in 2006. Current data were collected in 2007 at the Big Day Out in Sydney. The Big Day Out is a one-day festival attended by an estimated 30 000 people. While it cannot be assumed that those who attend music festivals are representative of young people in general, the study provides information about an interesting subpopulation of young people.

In 2007, 421 respondents completed the Big Day Out survey in Sydney. Participants ranged in age from 16 to 46 years (mean age = 21.1 years). Two-thirds (66.5%) of respondents were female and the majority (87.4%) identified as straight/heterosexual. Most (88.4%) were employed on at least a part-time basis and 51.8% reported having been educated beyond Year 12. Almost all respondents (98.6%) reported having used alcohol in the 12 months prior to the survey. Regular tobacco use was reported by 26.4% of the sample.

Illicit drug use was common, with more than half (54.9%) of respondents reporting use of any illicit drug in the previous 12 months. Marijuana was the most commonly reported illicit drug used in this period (by 43.9%). This was followed by ecstasy (used by 34%) and amphetamine/methamphetamine (used by 27.6%). Recent use of LSD, ketamine, GHB, heroin and benzodiazepines was reported by less than 5% of respondents. Table 26 presents data on the recent use of illicit drugs among patrons surveyed at the Big Day Out festival in Sydney in from 2004 to 2007.

The 2007 survey included questions about the frequency of use of the most widely used drugs: marijuana, ecstasy and amphetamines. Substantial proportions of respondents used these drugs, but a minority reported using them weekly or more frequently. For example, 28.1% of recent marijuana users, 21% of recent amphetamine/methamphetamine users and 14.7% of recent ecstasy users reported having used their respective drug weekly or more frequent in the preceding 12 months.

Injecting drug use among this sample was uncommon; only 18 respondents (4.3%) reported that they had ever injected an illicit drug and only seven (1.7%) reported having injected in the 12 months prior to the survey. In the most recent National Drug Strategy Household Survey, 2.6% of Australians aged 20 to 29 reported ever having injected illicit drugs, with 1% reporting having done so in the previous 12 months (Australian Institute of Health and Welfare, 2005). Among the current sample, amphetamine/methamphetamine (injected by 9 participants), ecstasy (injected by 8) and cocaine (injected by 6) were the most commonly reported illicit drugs ever injected. Among Big Day Out respondents who had injected in the 12 months prior to the 2007 survey (n = 7), three reported having

Table 26: Proportion (%) of music festival patrons at the Big Day Out in Sydney who reported any recent illicit drug use, 2004–2007[1]

Big Day Out (Sydney)	2004[2] *N* = 674		2006[3] *N* = 339		2007[3] *N* = 421	
	n	%	*n*	%	*n*	%
Marijuana	315	46.7	159	46.9	185	43.9
Ecstasy	202	30.0	132	38.9	143	34.0
Amphetamine	204	30.3	131	38.6	116 [4]	27.6 [4]
Methamphetamine	82	12.2	30	8.8		
Cocaine	103	15.3	31	9.1	28	6.7
LSD	143	21.2	23	6.8	15	3.6
Ketamine	47	7.0	17	5.0	8	1.9
Benzodiazepines	46	6.8	5	1.5	1	0.2
GHB	20	3.0	12	3.5	5	1.2
Heroin	22	3.3	2	0.6	4	1.0

[1] Data were not collected at the Big Day Out in 2005.

[2] Used in the six months prior to the survey.

[3] Used in the 12 months prior to the survey.

[4] Combined data for amphetamine/methamphetamine.

reused a tourniquet after somebody else, two a needle and syringe, one a swab and one a spoon.

In general, respondents perceived illicit drugs to be easily accessible. In 2007 the majority (82.9%) of participants rated at least one illicit drug as being 'fairly easy' or 'very easy' to obtain, and more than half (57.7%) rated at least three illicit drugs as 'easy' to obtain. Ease of acquisition was related to the type of drug. Marijuana, ecstasy and speed/amphetamines (not including methamphetamine) were rated as the easiest to obtain (by 81%, 65.1% and 48.9% of respondents, respectively), while heroin was perceived as the least easy to obtain (by 14%). The perceived ease of acquisition of illicit drugs according to respondents in the Big Day Out surveys is shown in Figure 8.

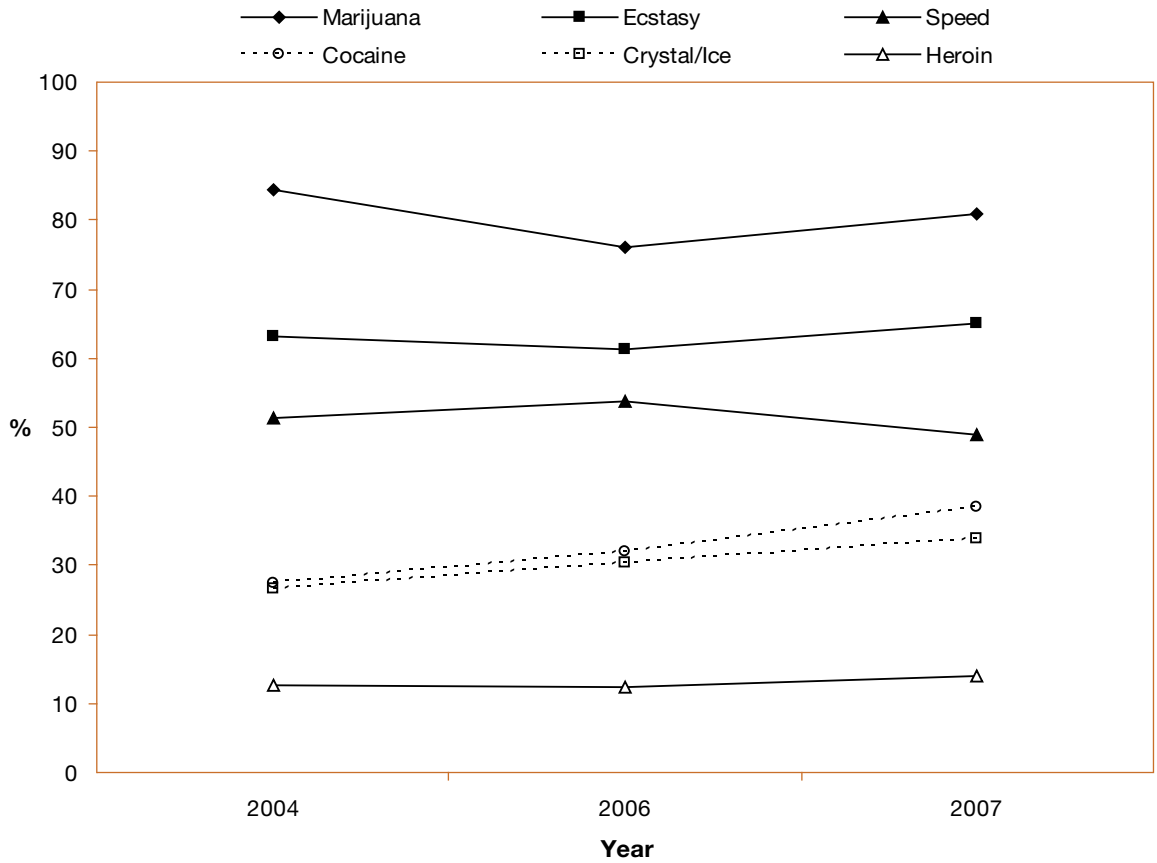


Figure 8: Proportion (%) of participants who reported each drug as 'fairly easy' or 'very easy' to obtain, among music festival patrons in NSW, 2004–2007[1]

1 Data were not collected at the Big Day Out in 2005.

National treatment service users project: Phase 2

Jeanne Ellard and Carla Treloar

In 2007 the Australian Injecting and Illicit Drug Users League (AIVL) and NCHSR successfully completed a research project on consumer participation in the planning and delivery of drug treatment services in Australia. Phase 1 of the Treatment Service Users Project sought to describe the current arrangements for consumer participation in this area and to determine the level of support for extending it.

Phase 2 of the project aims to implement specific recommendations resulting from Phase 1, that is, to evaluate the suitability and impact of a consumer participation program within various drug treatment settings.

Including consumers of health services in their planning and delivery has become the norm in many areas of health service delivery in Australia, such as mental health and disability services; however, this has not yet occurred in the case of drug treatment services. Phase 1 of the National Treatment Service Users Project indicated a high level of support from service users and providers for implementing a consumer participation program within drug treatment services. Phase 2 will use qualitative methods to assess the suitability and impact of consumer participation in five drug treatment services in three Australian states. The findings of this research will contribute to the development of a nationally agreed definition and model of consumer participation to be used at the levels of policy development and delivery of services.

4.4 Injecting drug use among pharmacy Fitpack users in New South Wales

Joanne Bryant, Max Hopwood, Peter Hull and Carla Treloar

In New South Wales most of what is known about practices that put injecting drug users at risk of transmission of blood-borne viruses comes from data collected from clients of needle and syringe programs. A sizeable proportion of needles and syringes distributed to people who inject drugs are distributed by community-based pharmacies through the Pharmacy Fitpack Scheme (a Fitpack is a hard plastic container holding up to ten sterile, individually wrapped 1 ml needles and syringes). Data from clients of needle and syringe programs may not be representative of those who use the Pharmacy Fitpack Scheme, and therefore it is important to monitor drug-use practices among Pharmacy Fitpack users alongside those of clients of needle and syringe programs.

A pilot survey was conducted in 2006, administered through eight community-based pharmacies and facilitated by pharmacists and their staff. In 2007 the survey was expanded to 36 pharmacies across five areas of New South Wales. The questionnaire asked Fitpack users about drug use, injecting risk practice, knowledge of hepatitis C and injecting practices with partners and friends.

In 2007, 36 pharmacies in the south-east Sydney, south-west Sydney, western Sydney, central Sydney and Hunter region of New South Wales agreed to participate in the study. During the study period, pharmacy staff distributed a self-complete survey to each person who bought or exchanged a Fitpack. Fitpack users were given $10 when they returned the survey. Pharmacists were also offered a small amount of money in recognition of the time and effort involved in facilitating the survey. A total of 750 surveys were returned, giving a response rate of 78.6% (750/954), of which 664 were valid.

The mean age of respondents was 35 years (SD = 8.7, range = 18 to 64 years). Nearly two-thirds (60.2%, n = 400) were male, the majority identified as straight/heterosexual (80.6%, n = 535) and 86.3% (n = 573) were born in Australia. A quarter (23.5%, n = 156) of respondents were employed either full time or part time, 36.7% (n = 244) were on a pension or the 'dole' and 31% (n = 206) were unemployed. A third (35.4%, n = 235) of respondents reported living alone, 31.1% (n = 207) lived with a partner, with or without children, 13.3% (n = 88) lived with parents or other relatives, and 13.3% (n = 88) with friends or flatmates.

The mean age at first injection reported by respondents was 20 (SD = 5.9, range = 10 to 47 years). The drug most commonly reported to have been recently injected (see Figure 9) was heroin (by 37.3%, n = 248), followed by meth/amphetamine (speed, base, ice) (36.3%, n = 241),

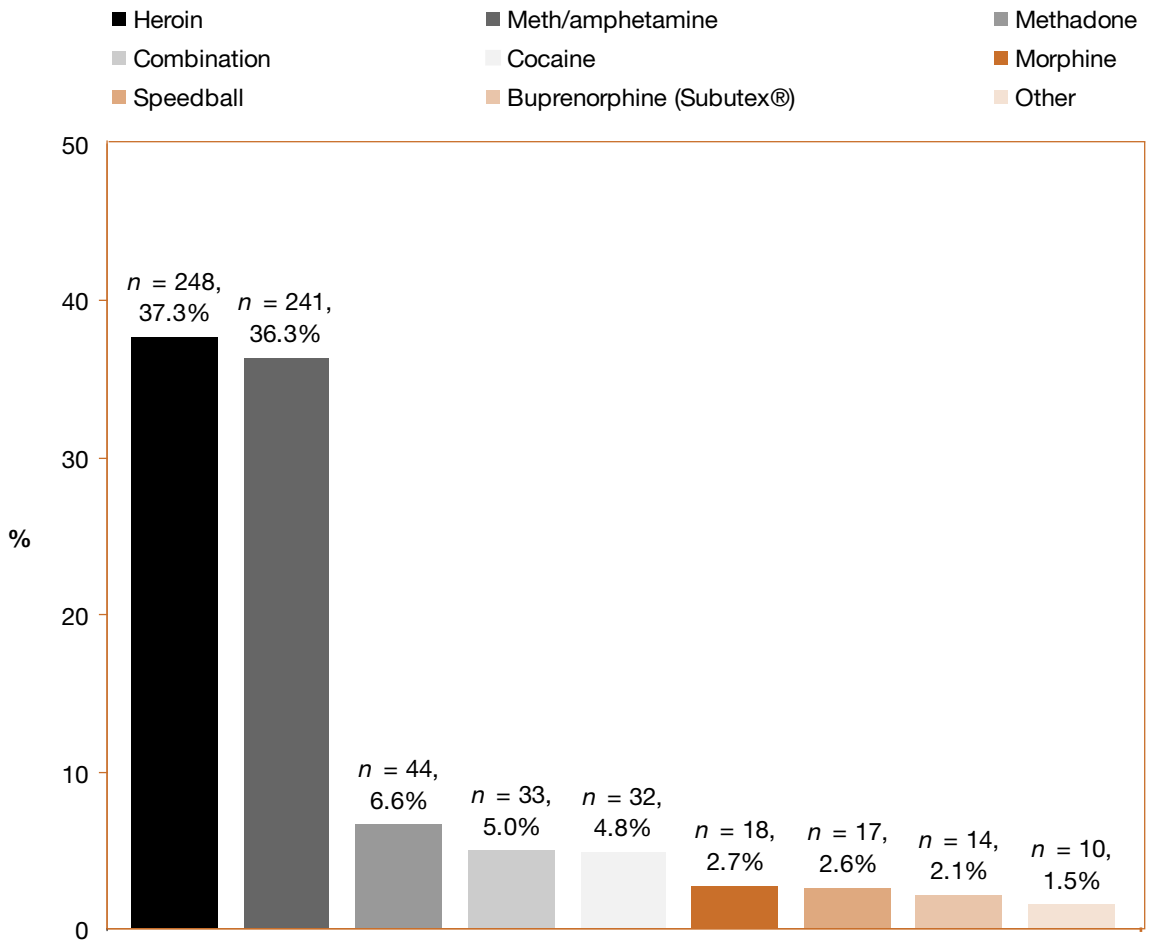


Figure 9: Drug most recently injected by Fitpack users, 2007

Note: 'Speedball' is heroin and cocaine injected at the same time.
'Combination' refers to two or more drugs injected at the same time.

methadone (6.6%, n = 44) and cocaine (4.8%, n = 32). In the previous month, a third (35.3%, n = 234) of respondents had injected drugs more often than once per day. Of the remainder, 19% (n = 126) had injected once per day, 22.1% (n = 147) more often than weekly but not daily, 15.2% (n = 101) less than weekly and 6.2% (n = 41) had not injected drugs in the previous month.

The proportion of respondents who had used injecting equipment previously used by another person varied according to the type of equipment. For example, 24.4% (n = 162) of respondents reported that, at least once in the previous month, they had used a needle and syringe after someone else had used it; 30% (n = 199) reported that they had reused a spoon in the previous month; 24.8% (n = 165) had used the same water; 16.1% (n = 107) had reused a filter; 12.2% (n = 81) had used the same drug solution or 'mix' and 11% (n = 73) had reused a tourniquet. Over a third (37.8%, n = 251) of respondents reported that they had never received treatment for their drug use and 17.5% (n = 116) said that they were currently in drug treatment.

Of the 42.6% (n = 283) of participants who reported having a regular partner, approximately two-thirds (68.9%, n = 195) had a partner who had also injected drugs in the previous six months and just over half (51.3%, n = 100) had shared a needle with their partner in the previous six months.

Avoiding 'the loop': why some drug users choose to obtain injecting equipment from pharmacies rather than needle and syringe programs

Max Hopwood and Joanne Bryant

Few studies of people who inject drugs have sampled from pharmacies or looked at the role of pharmacies in distributing injecting equipment. Fewer studies still have explored illicit drug users' experiences of obtaining injecting equipment from pharmacies. In an effort to address a potential bias in research and to better understand the role of pharmacy-based needle and syringe distribution, the NCHSR Fitpack study explored aspects of pharmacy-based distribution from the perspective of people who accessed the service. Qualitative interview data were collected as part of a mixed-method study of people using community-based pharmacies to obtain sterile injecting equipment. Interviewees were sought from three pharmacies in the south-east Sydney region that regularly distributed sterile injecting equipment. Fifteen clients of these pharmacies volunteered to be interviewed, 12 men and three women whose ages ranged from 26 to 46 years. All participants were interviewed from August to November 2006.

A key finding of the interview study was that clients obtained their injecting equipment from pharmacies to avoid 'the loop', by which they meant the variety of health professionals like doctors, nurses and psychologists that many inner-city harm reduction services employ, sometimes as an adjunct to the provision of needles and syringes. According to participants, 'the loop' comprised health professionals working in needle and syringe programs, methadone clinics, private general practices specialising in pharmacotherapy, and medical centres for people who inject, all of whom had the power to influence outcomes for drug users, both positively and negatively. As is evident from our data, participants valued services like the pharmacy-based needle and syringe program because they were outside the loop; they were spaces where our participants could feel 'normal' and blend in with other pharmacy customers without coming into contact with other drug users or being under the clinical gaze of doctors, nurses and case managers. One participant specifically reported the practice of 'avoiding the loop', which to him meant reducing interaction with harm reduction services in order to avoid personnel who wanted to monitor and counsel illicit drug users. While this participant reported that being in the loop was sometimes helpful, other participants did not want to be seen by their case managers when they were using drugs or obtaining injecting equipment.

At least some participants who obtained needles and syringes from pharmacies reported that they managed their drug use themselves and did not seek or need the resources and medical surveillance of mainstream harm reduction services. Findings from this study suggest that there is a need to provide and expand pharmacy-based needle and syringe distribution to meet the requirements of a diverse illicit-drug-using population. Pharmacies need to be acknowledged as important contributors to reducing the harms of illicit drug use.

5 Hepatitis infections

5.1 Knowledge of risk factors for hepatitis C transmission among pharmacy Fitpack users: results of 2007 study

Peter Hull, Joanne Bryant, Max Hopwood, Loren Brener and Carla Treloar

The extent of knowledge of risk practices for the transmission of hepatitis C among users of the pharmacy Fitpack scheme is largely unknown. There is a widely held belief that people who obtain injecting equipment from pharmacies are less exposed to information about harm reduction than those who visit needle and syringe exchange programs (Bryant & Treloar, 2006). Therefore, they may have less knowledge of hepatitis C and engage in more risky behaviour. In 2007 a study of Fitpack users from community-based pharmacies (described in Section 4.4, page 33) collected data on their risk practices and knowledge of how hepatitis C is transmitted.

In total, 664 users of the Fitpack scheme completed the questionnaire. About a third (32.7%, n = 217) reported that in the previous month they had not used a new, sterile needle and syringe on each occasion of injecting. Using a new, sterile needle and syringe at each injection is important, especially when sharing drug solution with others. Hepatitis C can be transmitted through drug solution if one or more of those sharing the solution is reusing their own needle. Similarly, 24.4% (n = 162) reported, in the previous month, having reused a needle and syringe that someone else had already used. Of these respondents, 38.3% (n = 62) reported having reused a needle and syringe already used by one other person, most commonly a sexual partner (75.8%, n = 47) (see Table 27). A further 36.8% (n = 60) reported

having reused a needle and syringe that had been used by two or more people, who were usually a sexual partner (75%, n = 45) or friend (33.3%, n = 20). A quarter (25.3%) of participants either did not respond to the question asking with whom they shared equipment, or provided invalid responses.

Most respondents (86.4%, n = 574) reported having ever been tested for hepatitis C (see Figure 10). Of these, 63.4% (n = 364) had been tested in the previous 12 months. Almost half (44.8%, n = 257) reported that they were positive for hepatitis C.

Overall, users of the Fitpack scheme proved to be highly knowledgeable about hepatitis C generally, and hepatitis C transmission specifically. Most (around 90%) knew that hepatitis C was transmitted via the sharing of needles and syringes and other equipment used for injecting (see Table 28). Fewer were aware that there was more than one type of hepatitis C or that treatment did not always cure hepatitis C, indicating that the consequences of contracting hepatitis C may not be fully appreciated among this population.

Table 27: Proportion (%) of participants who reported using a needle and syringe after (a) one other person and (b) two or more people, and their relationships to those people, among Fitpack users who reported reusing a needle and syringe (*N* = 121), 2007

Relationship to person who had already used needle and syringe	Number of others who had used needle and syringe before participant			
	1 person[1] (n = 62)		2 or more people[1] (n = 59)	
	n	%	*n*	%
Regular or casual partner	47	75.8	44	74.6
Friend/Acquaintance	16	25.8	20	33.9
Other, or missing	1	1.6	2	3.4

[1] Values add to more than 100% because respondents were able to select more than one response.

Table 28: Knowledge of hepatitis C and the risks of transmission, among Fitpack users, 2006 and 2007

Respondents who correctly identified that:	2006 *N* = 229		2007 *N* = 664	
	n	%	*n*	%
You can get hepatitis C from sharing needles and syringes	199	86.9	581	87.5
It is unsafe to share other equipment (e.g. tourniquet, swab, filter, spoon) when injecting drugs	195	85.2	558	84.0
There is more than one type of hepatitis C	168	73.4	457	68.8
Treatment does not always cure hepatitis C	158	69.0	456	68.7

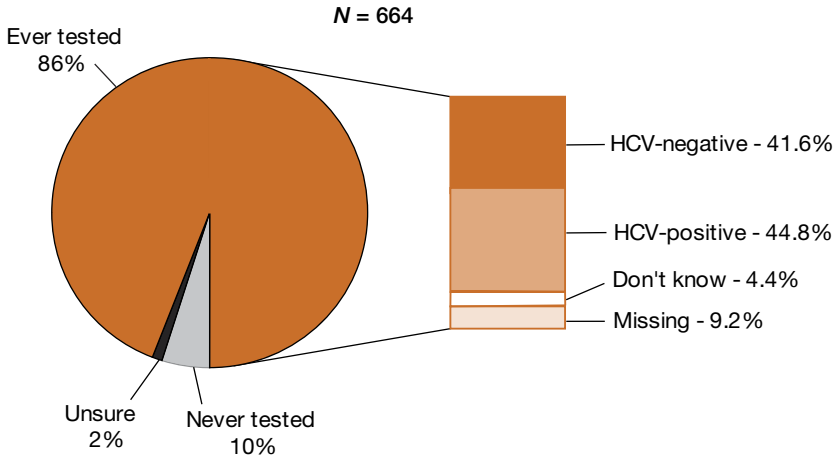


Figure 10: Testing for hepatitis C, and hepatitis C status, among Fitpack users, 2007

HCV = hepatitis C
Note: Values do not add to 100% due to missing data

5.2 Knowledge of hepatitis C among young people attending music festivals in New South Wales

Peter Hull, Yvonna Lavis, Joanne Bryant and Carla Treloar

The Periodic Survey of Drug Use among Young People maps the drug-use patterns and practices of young people who attend music festivals in New South Wales. Recent surveys have also included items to assess their knowledge of hepatitis C transmission routes. The most recent periodic survey was conducted at the Big Day Out in Sydney in 2007 (see Section 4.3, page 31).

In general, the level of knowledge of the role of injecting equipment in the transmission of hepatitis C was high. Most participants (74.5%) knew that hepatitis C could be contracted via shared needles used for injecting drugs, and 60.1% that it could be transmitted via injecting equipment other than needles. But reported levels of injecting were very low in this sample (see Section 4.4, page 33), so knowledge of the risks of injecting is not particularly relevant. On the other hand, tattooing and body piercing are common, so knowledge of the possibility of hepatitis C transmission via these routes is of greater interest. Almost 30% did not know that hepatitis C could be transmitted via unsterile tattooing or body piercing (see Table 29).

Table 29: Proportion (%) of respondents who correctly identified that hepatitis C transmission (and HIV transmission in 2004) could occur by the following means, among young people who attended music festivals in NSW, 2004–2007

Hepatitis C can be transmitted by:	2004		2005		2006		2007	
	n	%	*n*	%	*n*	%	*n*	%
Big Day Out (Sydney)	***N* = 674**				***N* = 339**		***N* = 486**	
sharing toothbrushes/razors	345	51.2			140	41.3	173	35.4
unsterile tattooing or body piercing	466	72.6			259	76.4	345	71.0
sharing needles for injecting[1]	558	82.8			283	83.5	362	74.5
sharing injecting equipment other than needles	476	70.6			224	66.1	292	60.1
Splendour in the Grass (Byron Bay)	***N* = 804**		***N* = 823**					
sharing toothbrushes/razors	436	54.2	323	39.2				
unsterile tattooing or body piercing	615	76.5	627	76.2				
sharing needles for injecting[1]	741	92.2	697	84.7				
sharing injecting equipment other than needles	604	75.1	697	72.1				

[1] In the 2004 samples, this question related to transmission of HIV, not transmission of hepatitis C.

Psychosocial impacts following completion of interferon-based treatment for hepatitis C virus infection

Max Hopwood

Presently, each year in Australia, about 2000 people begin treatment for infection with the hepatitis C virus, and the number of people entering treatment is expected to increase significantly. However, there are no psychosocial studies of treatment outcomes, in relation to the risk practice, health and quality of life of those treated for hepatitis C (Monji et al., 1998), reported in the research literature. According to the clinical literature, side effects usually disappear soon after interferon therapy is stopped. However, evidence of persistent neurotoxicity exists both among people treated for hepatitis C and in the oncology literature (Meyers et al., 1991), where it is suggested that in some cases interferon-related neurotoxicity is irreversible. Similarly, there are reports of persistent physical side effects (Hurst & Mauro, 2005) and in some cases autoimmune disease has occurred six months after completion of pegylated interferon and ribavirin treatment (Elefsiniotis, 2006).

A qualitative study at NCHSR is exploring outcomes of hepatitis C treatment at a number of sites. It addresses a significant gap in the research literature by giving voice to patients' experiences following treatment. The aim is to investigate the impact, following completion of treatment, of either a cure or the failure of treatment on individuals' risk practices, health and quality of life related to having hepatitis C. Researchers will recruit approximately 30 participants for in-depth semi-structured interviews. The sample will comprise equal numbers of men and women aged from approximately 20 to 70 years and recruited through the Hepatitis C Council of New South Wales (n = 10), Hepatitis C Council of Victoria (n = 10) and HepCAustralasia.org (n = 10), a website for people living with hepatitis C. Eligible participants will have completed treatment at least six months, and no more than two years, prior to interview.

Being the first psychosocial exploration of outcomes following treatment, the study findings will (a) provide important social-contextual information in relation to understanding the impact of persistent neurotoxicity on risk practices for re-infection with hepatitis C, (b) explore the impacts of either a cure or the failure of treatment, e.g. on employment, personal relationships and emotional and social functioning, (c) describe individual perceptions of improvement or deterioration in health and quality of life after treatment, and (d) inform health promotion and planning programs for people completing hepatitis C treatment.

5.3 Future developments

Using computer-assisted survey techniques in community settings

Peter Hull and John Imrie

Computers play an increasingly important role in the systematic collection of data used in social research. In particular, computer-assisted self-interview, in which survey respondents answer survey questions directly onto computers, have become very common in interview situations. There are numerous advantages to this technology, including fewer missed items, no data-entry costs and the ease with which complicated questions can be asked (routing). However, conducting community-based surveys presents its own challenges. Computer companies and software developers have only recently been able to comprehensively address these challenges and provide equipment that meets researchers' requirements across wide-ranging contexts and diverse population and language groups. At NCHSR we have a growing interest in maximising the impact of our work by making best use of new computer technologies, and particularly in how we can use them to improve the data we gather and the quality of our research output.

In 2007 NCHSR staff trialled the use of handheld computers among young Aboriginal people to collect survey data on their knowledge and risk practices related to the transmission of blood-borne viruses and sexually transmissible infections. This innovative method proved highly acceptable and successful at two data collection events. Up to eight HP Ipaq handheld computers loaded with Questionnaire Development System (QDS) software were used at each event. Participants were given brief instructions on how to use the device and navigate through the questionnaire. Most of the participants, when given the option of using a handheld computer device or filling out a printed questionnaire, preferred to use the handheld device and none had any difficulty in completing the questionnaire in this way. Using handheld computers to collect these questionnaire data had a number of advantages over the use of printed questionnaires:

- Significant savings were made by avoiding the costs of printing the questionnaires and data entry.
- It was possible to validate the responses of participants in real time, thereby increasing the accuracy of the data collected.
- It was a simple and quick process to make changes to the questionnaire.
- Some participants commented that using these devices felt more confidential than filling out a printed questionnaire where others could see their responses.
- The QDS program allows audio files to be attached to questions to aid participants with literacy problems.

One disadvantage of using handheld computers is the small size of the display, although this is usually only an issue when a question has many options to which participants can respond. If data collection is to be carried out in a location where a desktop or laptop computer could be used, participants can use a mouse or touch-screen monitor to enter responses. Alternative software packages are also available for the administration of computerised questionnaires.

From our initial experience we believe that using computerised data collection is not suitable for all situations and populations. However, in suitable locations this system can be used for self-complete and interviewer-administered surveys with significant savings in cost and time and increased quality and completeness of data.

6 The current climate

6.1 Ambivalence about gay community: findings from the QUICKIE project

Martin Holt

The Qualitative Interviews Concerning Key Issues and Experiences (QUICKIE) project is funded by NSW Health to explore the contemporary experience of gay life in Sydney through the accounts of sexually active gay men. The aims of the project are to identify emerging issues of significance to gay men that may require an educational, policy or research response, to ask gay men to reflect on issues deemed significant by educators, researchers or policy makers, and to provide contextual information to existing survey data.

In 2006/07, 31 gay men from a range of backgrounds were interviewed about their social and sexual lives, experience of alcohol and other drugs, perceptions of HIV and engagement in gay community activities (see Bernard et al., 2008. The full report can be downloaded from: http://nchsr.arts.unsw.edu.au/pdf%20reports/Quickie2007.pdf).

In most social and behavioural research, all of the men in the QUICKIE study would be regarded as 'gay-community-attached'; they identified as gay, had gay friends, spent time with gay men and took part in gay community activities (Kippax et al., 1993). In Australia gay-community-attached men are seen as having led the way in developing community norms around safe sex practice and have been considered relatively easy to address through gay media and targeted educational campaigns (Kippax & Race, 2003). It is sometimes assumed that gay men's identification with gay community is a straightforward process. It has, however, been recognised for some time that the idea of the 'gay community' (and gay men's relationship to it) is shifting due to generational change, the changing status of homosexuality and the evolving HIV epidemic, among other things (Fraser, 2004; Hurley, 2003; Reynolds, 2002, 2007). Despite these trends, we were still struck by the degree of ambivalence (the presence of conflicting ideas or emotions) that many men expressed when we spoke to them about 'gay community'. This is perhaps most succinctly captured in the following quote:

> I think for me the community has changed ever since I've been a gay man but I tend to want to identify with belonging to the community and there is a part of me that doesn't want to belong to the community as well.
>
> *(Baxter, 46, HIV-positive)*

While some men recognised that a gay community existed in Sydney but were unsure whether they wanted to be part of it, others questioned if there 'really was' a gay community. These men suggested that the term 'gay community' implied a sense of unity or uniformity that did not exist:

> I really feel like it's such a loose term, 'community'. There is almost no community. It seems to be more something you use to have a good time or to meet people. It's not like the Italian community, for example, where they all get together and celebrate and help each other out. I don't feel it is such a tight community.
>
> *(Adonis, 25, HIV-negative)*

> I don't think it's a community. I think it's labelled falsely. I think it's about 20 different communities, many of which have absolutely nothing in common and shouldn't be even 'umbrella-ed'. I think I have more community with a lot of my straight friends.
>
> *(Dennis, 30, HIV-negative)*

For those who recognised and described a gay community in Sydney, the most visible aspects of it were located in the commercial 'scene' of gay bars, clubs, cafés and sex venues. The blurred division between the commercial scene and gay community in men's descriptions often meant that problems associated with the gay scene were thought to be problems with the gay community as a whole. Particular problems with the scene that were identified included an excessive focus on youth and physical appearance, racism, high levels of alcohol and other drug use, and the transient and at times superficial nature of interactions between participants in the scene:

> Looks matter so much more in the queer scene so that when I talk to my straight friends, their relationships are built more on chemistry, connection and friendship, whereas when I talk to my gay friends it's always 'he's hot' or 'he's not'.
>
> *(Caleb, 22, HIV-negative)*

> I've been brought into the notion that it's part of the norm. Places [on Oxford Street] are littered with drugs. There is ecstasy everywhere. I distance myself from it.
>
> *(Adrian, 22, HIV-negative)*

> The Sydney scene is all about bars, clubs, etc., and if you don't really like that there are not many options. It's a very judgmental community, which means it tends to fragment into things like the young and the beautiful versus the old and decrepit, the HIV-positive and the healthy, and so on.
>
> *(Jeffrey, 52, HIV-negative)*

Older men in particular said that they had experienced a stronger sense of connection to gay community in the past. Gay political activism in the 1970s and 80s, the collective response to the HIV epidemic in the 80s and 90s, and the prominence of gay social life in inner Sydney and on Oxford Street in particular were thought to have forged a strong sense of gay community membership for many men. In contrast, the perception that gay men and lesbians had achieved many political and legal rights, that the urgency of the HIV epidemic in Australia had waned, and that gay socialising had diversified and dispersed were all thought to have contributed to the erosion of a sense of gay community:

> I think a lot of the political work has been done, like in the early 80s and the 90s, and people have moved on and people these days are different. Hard to say they don't care but they are evolving in different ways doing different things.
>
> *(Baxter, 46, HIV-positive)*

> It's kind of like it was the AIDS community then and even if you were negative you could contribute … The sense of community has dissipated and perhaps that's a good thing that we don't focus on such a negative thing and in other ways the community has become a lot more diverse, and dispersed. Oxford Street is not a particularly gay-friendly street a lot of the time.
>
> *(Sean, 34, HIV-negative)*

> I am part of the community. For me, growing up in my generation, the ghetto was very important. It was our safety zone, our place to be without fear of being physically or verbally abused and it was a very exciting place … whereas the vast majority of younger men I meet say there is no need for a ghetto. They go out with their straight friends and happily dance with their gay friends at nightclubs and the issue of sexuality doesn't seem to matter so much for them, so Oxford Street has broken down in that respect.
>
> *(Ray, 47, HIV-positive)*

The idea that there had been a cohesive and bonded gay community in the past which was now lost (or fragmented) was a common one in participants' accounts. This may either reflect the 'real' replacement of a small, close-knit gay community in Sydney with a larger, looser arrangement of gay men or it may reflect a reinterpretation of the past from a somewhat rose-tinted perspective. It has been suggested that the very idea of community can invoke a sense of loss or nostalgia (Nancy, 1991) and that when the word 'community' is used, people think of small, village-like arrangements of people who all know and support each other (Anderson, 1991). This idea of community may bear little relation to the way people actually participate with others locally, particularly in metropolitan areas. Using the word 'community' may therefore make people feel that their social environment is lacking in some way, even though they know other people in their neighbourhood or city with whom they have mutually supportive interactions.

Ambivalence about gay community may also reflect a deprioritisation of gay identity as a way to understand and organise one's life (Reynolds, 2007). Many men in the

study described a changing engagement with gay life in Sydney in which they had distanced themselves from what they saw as a narrow or restrictive form of gay community and had diversified their social networks:

> There is definitely a gay community in Sydney. I don't actually feel as if I'm part of it and that is by choice more than anything. As I get older I find it's quite alien to me. I tend to work and play pretty much in the straight world. I have gay friends but my gay friends and I don't tend to live on Oxford Street.
>
> *(Toby, 37, HIV-negative)*

Men in the QUICKIE study suggested that they gained a sense of community from broad networks of friends and family, where sexual identity was not the only organising factor. This reflects the increased blurring of boundaries between gay and straight worlds, especially for the young. It also reflects the shift from geographically or culturally distinct ideas of community to what have been referred to as 'personal communities', smaller, dynamic, affective networks composed of kin, families of choice, friends and lovers (Pahl & Spencer, 2004). Both older and younger participants mentioned the importance of these networks in providing alternatives to gay community or, more specifically, to the commercial gay 'scene'.

So does ambivalence about an older notion of gay community have implications for policy and practice? In many respects, the short answer is 'no'. Much of contemporary education and prevention work conducted with gay men does not rely on homogeneous ideas of shared community, addressing men instead by referring to their sexual practices (what they do) rather than how they identify or locate themselves. When shared values or practices are discussed in health promotion campaigns, they are increasingly at a more modest, personal level rather than reflecting a reliance on monolithic ideas of community. ACON's recent campaign encouraging friends to look out for each other, 'Mates look after each other … it's what we do', is an example of how a campaign can appeal to a sense of 'personal community' (see Figure 11).

However, other campaigns about the broader aspects of gay (and lesbian) community (such as those tackling homophobic violence or racism) still tend to refer to a unified notion of gay community. For example, ACON and the City of Sydney's recent anti-racism campaign, 'Would you wear it?', exhorts the reader to 'work towards a community where everyone is accepted and respected' (see Figure 12). While only the most reactionary would argue against the aims of a campaign like this, we should bear in mind that deploying a notion of a bonded, shared community may not match the way that gay men see their engagement with gay life. Just because we (as researchers, policy makers and educators) can classify many gay men as 'gay-community-attached' does not mean they have a straightforward relationship to the idea of gay community, or that appeals to a broad, collective sense of community will generate unequivocal and positive responses.

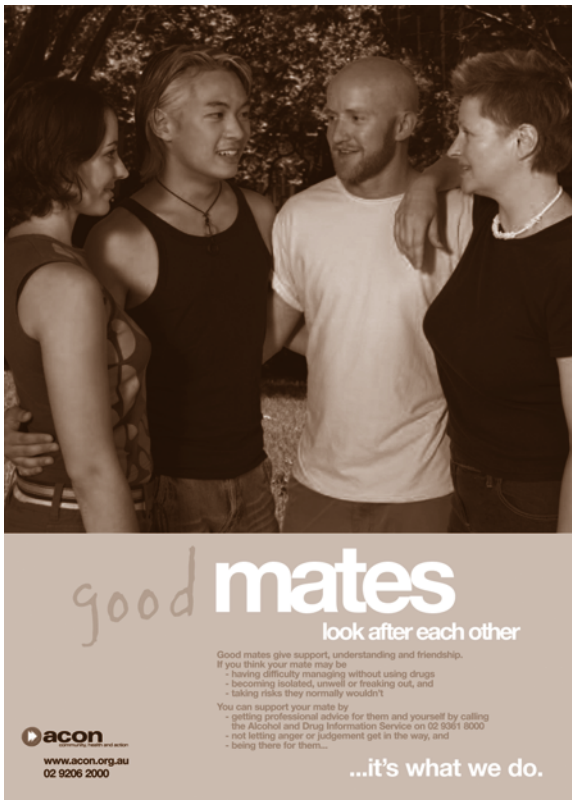


Figure 11: Example of a poster from the ACON 'Mates' campaign

Figure 12: Example of a poster from the ACON and City of Sydney 'Would you wear it?' campaign

References

Anderson, B. (1991). *Imagined communities: Reflections on the origins and spread of nationalism.* London: Verso.

Australian Institute of Health and Welfare. (2005). *2004 National Drug Strategy Household Survey: Detailed findings.* AIHW Catalogue Number PHE 66 (Drug Statistics Series No.16). Canberra: Australian Institute of Health and Welfare.

Bernard, D., Holt, M. & Race, K. (2008). *Accounts of contemporary gay life in Sydney: Summary of findings of the QUICKIE study, 2007.* Sydney: National Centre in HIV Social Research, The University of New South Wales. Available at http://nchsr.arts.unsw.edu.au/pdf%20reports/Quickie2007.pdf

Bourne, C., Edwards, B., Shaw, M., Gowers, A., Rodgers, C., & Ferson, M. (2008). Sexually transmissible infection testing guidelines for men who have sex with men. *Sexual Health, 5, 189–191.*

Bryant, J., & Treloar, C. (2006). Risk practices and other characteristics of injecting drug users who obtain injecting equipment from pharmacies and personal networks. *International Journal of Drug Policy, 17,* 418–424.

Crawford, J., Bermingham, S., & Kippax, S. (1996). *An analysis of trends over time in social and behavioural factors related to the transmission of HIV in men who have sex with men: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96* (Technical Appendix 3). Canberra: Australian Government Publishing Service.

Crawford, J., Kippax, S., Mao, L., Van de Ven, P., Prestage, G., Grulich, A., & Kaldor, J., in association with the Australian–Thai HIV Vaccine Consortium. (2006). Number of risk acts by relationship status and partner serostatus: Data from the HIM cohort of homosexually active men in Sydney, Australia. *AIDS and Behavior* (Search online for DOI:10.1007/s10461-005-9057-3).

Crawford, J., Kippax, S., Rodden, P., Donohoe, S., & Van de Ven, P. (1998). *Male call 96: National telephone survey of men who have sex with men.* Sydney: National Centre in HIV Social Research, Macquarie University.

Crawford, J., Rodden, P., Kippax, S., & Van de Ven, P. (2001). Negotiated safety and other agreements between men in relationships: Risk practice redefined. *International Journal of STD and AIDS, 12,* 164–170.

Crofts, N., Webb-Pullman, J., & Dolan, K. (1995). *An analysis of trends over time in social and behavioural factors related to the transmission of HIV among injecting drug users and prison inmates: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96* (Technical Appendix 4). Canberra: Australian Government Publishing Service.

DiMaggio, P., Hargittai, E., Neuman, W. R., & Robinson, J. P. (2001). Social implications of the internet. *Annual Review of Sociology, 27,* 307–336.

Elefsiniotis, I. S., Pantazis, K. D., Fotos, N. V., Moulakakis, A., & Mavrogiannis, C. (2006). Late onset autoimmune thrombocytopenia associated with pegylated interferon alpha 2 plus ribavirin treatment for chronic hepatitis C. *Journal of Gastroenterology and Hepatology, 21,* 622–623.

Feachem, R. (1995). *Valuing the past … investing in the future: Evaluation of the National HIV/AIDS Strategy 1993–94 to 1995–96.* Canberra: Australian Government Publishing Service.

Fogarty, A., Rawstorne, P., Prestage, G., Grulich, A., Kippax, S., Worth, H., & Murphy, D. (2003). *Positive health: Then and now ... following HIV-positive people's lives over time*

(Monograph 9/2003). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Frankland, A., Zablotska, I., Prestage, G., Batrouney, C., Clift, P., Nixon, R., & Kippax, S. (2007a). *Gay Community Periodic Survey: Melbourne 2007* (GCPS Report 4/2007). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Frankland, A., Zablotska, I., Prestage, G., O'Connor, S., Martin, P., & Imrie, J. (2007b). *Gay Community Periodic Survey: Queensland 2007* (GCPS Report 1/2008). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Fraser, S. (2004). *Changing community, changing practice? Young gay men, HIV and gay community* (Monograph 1/2004). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Gossop, M., Stewart, D., & Marsden, J. (2003). Treatment process components and heroin use outcome among methadone patients. *Drug and Alcohol Dependence, 71,* 93–102.

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology, 74,* 1464–1480.

Holt, M. (2005). Young people and illicit drug use in Australia [Social Research Issues Paper No. 3]. Sydney: National Centre in HIV Social Research, The University of New South Wales.

Hull, P., Zablotska, I., Rawstorne, P., Prestage, G., Kippax, S., Ngo, P., Wentzlaff-Eggebert, M., & Horwood, B. (2006). *Gay Community Periodic Survey: Adelaide 2005* (GCPS Report 3/2006). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Hurley, M. (2003). *Then and now: Gay men and HIV* (Monograph No. 46). Melbourne: Australian Research Centre in Sex, Health and Society, La Trobe University.

Hurst, E. V., & Mauro, T. (2005). Sarcoidosis associated with pegylated interferon alfa and ribavirin treatment for chronic hepatitis C: A case report and review of the literature. *Archives of Dermatology, 141,* 865–868.

Imrie, J., & Frankland, A. (Eds.). (2007). *HIV/AIDS, hepatitis and sexually transmissible infections in Australia: Annual report of trends in behaviour 2007* (Monograph 1/2007). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Kippax, S., Campbell, D., Van de Ven, P., Crawford, J., Prestage, G., Knox, S., Culpin, A., Kaldor, J., & Kinder, P. (1998). Cultures of sexual adventurism as markers of HIV seroconversion: A case control study in a cohort of Sydney gay men. *AIDS Care, 10,* 677–688.

Kippax, S., Crawford, J., Davis, M., Rodden, P., & Dowsett, G. (1993). Sustaining safe sex: A longitudinal study of a sample of homosexual men. *AIDS, 7,* 257–263.

Kippax, S., Crawford, J., Rodden, P., & Benton, K. (1994). *Report on project Male Call: National telephone survey of men who have sex with men.* Canberra: Australian Government Publishing Service.

Kippax, S., Noble, J., Prestage, G., Crawford, J. M., Campbell, D., Baxter, D., & Cooper, D. (1997). Sexual negotiation in the 'AIDS era': Negotiated safety revisited. *AIDS, 11,* 191–197.

Kippax, S., & Race, K. (2003). Sustaining safe practice: Twenty years on. *Social Science & Medicine, 57,* 1–12.

Körner, H. (2007). Late HIV diagnosis of people from culturally and linguistically diverse backgrounds in Sydney: The role of culture and community. *AIDS Care, 19,* 168–178.

Meyers, C. A., Scheibel, R. S., & Forman, A. D. (1991). Persistent neurotoxicity of systematically administered interferon-alpha [Comment]. *Neurology, 42*, 939.

Monji, A. K., Yoshida, I., Tashiro, K., Hayashi, Y., & Tashiro, N. (1998). A case of persistent manic-depressive illness induced by interferon-alpha in the treatment of chronic hepatitis C [Letter]. *Psychosomatics, 39,* 562–564.

Nancy, J. L. (1991). *The inoperative community.* Minneapolis: University of Minnesota Press.

National Centre in HIV Epidemiology and Clinical Research. (2007). *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2007.* Sydney: National Centre in HIV Epidemiology and Clinical Research, The University of New South Wales; Canberra: Australian Institute of Health and Welfare.

National Centre in HIV Epidemiology and Clinical Research. (2008). *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2008.* Sydney: National Centre in HIV Epidemiology and Clinical Research, The University of New South Wales.

National Centre in HIV Social Research. (1999). *HIV/AIDS and related diseases in Australia: Annual report of behaviour 1999.* Sydney: National Centre in HIV Social Research, The University of New South Wales.

National Centre in HIV Social Research. (2000). *HIV/AIDS, hepatitis C and related diseases in Australia: Annual report of behaviour 2000.* Sydney: National Centre in HIV Social Research, The University of New South Wales.

National Centre in HIV Social Research. (2001). *HIV/AIDS, hepatitis C and related diseases in Australia: Annual report of behaviour 2001.* Sydney: National Centre in HIV Social Research, The University of New South Wales.

Pahl, R., & Spencer, L. (2004). Personal communities: Not simply families of 'fate' or 'choice'. *Current Sociology, 52,* 199–221.

Prestage, G., Jin., F., Zablotska, I., Grulich, A., Imrie, J., Kaldor, J., Honnor, G., & Kippax, S. (2008). Trends in agreements between regular partners among gay men in Sydney, Melbourne and Brisbane, Australia. *AIDS & Behaviour, 12,* 513–520.

Rawstorne, P., Fogarty, A., Crawford, J., Prestage, J., Grierson, J., Grulich, A., & Kippax, S. (2007). Differences between HIV-positive gay men who 'frequently', 'sometimes' or 'never' engage in unprotected anal intercourse with serononconcordant casual partners: Positive Health cohort, Australia. *AIDS Care, 19,* 514–522.

Rawstorne, P., Treloar, C., & Richters, J. (Eds.). (2005). *Annual report of behaviour 2005: HIV/AIDS, hepatitis and sexually transmissible infections in Australia* (Monograph 3/2005). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Rempel, M., & Destefano, C. (2000). *Predictors of engagement in court-mandated treatment: Findings at the Brooklyn Treatment Center, 1996–2000.* Philadelphia: Haworth Press.

Reynolds, R. (2002). *From camp to queer: Remaking the Australian homosexual.* Melbourne: Melbourne University Press.

Reynolds, R. (2007). *What happened to gay life?* Sydney: New South.

Richters, J. (Ed.). (2006). *HIV/AIDS, hepatitis and sexually transmissible infections in Australia: Annual report of trends in behaviour 2006* (Monograph 3/2006). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Siddall, J., & Conway, G. (1988). Interactional variables associated with retention and success in residential drug treatment. *Substance Use & Misuse, 23,* 1241–1254.

Smith, A., Reichler, H., & Rosenthal, D. (1995). *An analysis of trends over time in social and behavioural factors related to the transmission of HIV among the general community, sex workers and sex travellers* (Technical Appendix 5). Canberra: Australian Government Publishing Service.

Smith, A., Rissel, C., Richters, J., Grulich, A., & de Visser, R. (2003). Sex in Australia: The rationale and methods of the Australian Study of Health and Relationships. *Australian and New Zealand Journal of Public Health, 27,* 106–117.

Szreter, S., & Woolcock, M. (2004). Health by association? Social capital, social theory, and the political economy of public health. *International Journal of Epidemiology, 33,* 650–667.

Van de Ven, P., French, J., Crawford, J., & Kippax, S. (1999). Sydney gay men's agreements about sex. In P. Aggleton, G. Hart & P. Davies (Eds.), *Families and communities responding to AIDS.* London: UCL Press.

Van de Ven, P., Rawstorne, P., Crawford, J., & Kippax, S. (2001). *Facts & figures: 2000 Male Out survey* (Monograph 2/2001). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Van de Ven, P., Rawstorne, P., & Treloar, C. (Eds.). (2002). *HIV/AIDS, hepatitis C and related diseases in Australia: Annual report of behaviour 2002* (Monograph 4/2002). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Van de Ven, P., Rawstorne, P., Treloar, C., & Richters, J. (Eds.). (2003). *HIV/AIDS, hepatitis C and related diseases in Australia: Annual report of behaviour 2003* (Monograph 4/2003). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Van de Ven, P., Rawstorne, P., Treloar, C., & Richters, J. (Eds.). (2004). *HIV/AIDS, hepatitis & sexually transmissible infections in Australia: Annual report of behaviour 2004* (Monograph 4/2004). Sydney: National Centre in HIV Social Research, The University of New South Wales.

White, V., & Hayman, J. (2004). *Australian secondary students' use of alcohol in 2002* (National Drug Strategy Monograph Series No. 55). Canberra: Australian Government Department of Health and Ageing.

Zablotska, I., Brown, G., Frankland, A., Prestage, G., Kippax, S., & Langdon, T. (2007a). *Gay Community Periodic Survey: Perth 2006* (GCPS Report 3/2007). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Zablotska, I., Imrie, J., Bourne, C., Grulich, A. E., Frankland, A., & Prestage, G. (in press). Improvements in sexual health testing among gay men in Sydney, Australia, 2003–2007. *International Journal of STD and AIDS.*

Zablotska, I., Prestage, G., Chong, S., Schamburg, K., Mills, D., Blattman, T., & Kippax, S. (2007b). *Gay Community Periodic Survey: Canberra 2006* (GCPS Report 2/2007). Sydney: National Centre in HIV Social Research, The University of New South Wales.

Zablotska, I., Prestage, G., Frankland, A., Crawford, J., Kippax, S., Sutherland, R., Corrigan, N., & Honnor, G. (2007c). *Gay Community Periodic Survey: Sydney, February 2007.* Sydney: National Centre in HIV Social Research, The University of NSW. Available at http://nchsr.arts.unsw.edu.au/pdf%20reports/sydney_gcps_feb2007.pdf

Zablotska, I., Prestage, G., Grulich, A., & Imrie, J. (2008). Differing trends in sexual risk behaviours in three Australian states: New South Wales, Victoria and Queensland, 1998–2006. *Sexual Health, 5,* 125–130.